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ABSTRACT

A "Participation Study," designed to determine the relationships among economic status, educational need and instructional services received, is described in this report. Based on data collected from 15,000 randomly selected elementary school students from across the country, compensatory education selection rates are presented for students from different economic backgrounds with different achievement levels. Projections are made for the nation's estimated 20 million public school students in grades 1 through 6 in terms of the number counted using current Title I allocation criteria, the number of low achievers, and the number selected for compensatory education. Relationships among the variables used to make the above projections are also investigated. (Author/GC)

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STUDENTS' ECONOMIC AND EDUCATIONAL STATUS AND SELECTION FOR COMPENSATORY EDUCATION

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TECHNICAL REPORT #2 FROM THE
STUDY OF THE SUSTAINING EFFECTS OF COMPENSATORY
EDUCATION ON BASIC SKILLS

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OVERVIEW

This is the second technical report in a series emanating from the Study of the Sustaining Effects of Compensatory Education on Cognitive Skills. The first chapter introduces the Participation Study and its principal variables: family economic status, student educational status, and compensatory education (CE) selection status. Chapters II-VI, of particular interest to legislators and policy-makers, report on the CE selection rates of students with different economic backgrounds and achievement levels. Chapters II-VI need not be read in sequence. With Chapter I as an introduction, attention may be focused on any other chapter independent of the order of presentation. Projections are made for the nation's estimated 20 million public school students in grades 1-6 in terms of the number counted using the current Title I allocation criteria, the number of low achievers, and the number selected for CE. Relationships among the variables used to make the above projections are also investigated.

The Sustaining Effects Study

The Sustaining Effects Study is a large, multi-faceted study of issues in the compensatory education of elementary school children. The different parts of the study can be summarized as follows:

The Longitudinal Study. In the Longitudinal Study, the educational achievements of a large number of children will be assessed in the fall and spring for three consecutive years. The children will take an achievement test in reading and mathematics, a functional literacy test, and a measure of attitude toward school and toward themselves as students. The amount and nature of instruction in reading and mathematics will be determined for each student four times during the school year. In addition, teachers and principals will report on their theories and practices of instruction and teaching. Thus, it will be possible not only to assess student growth over a three-year period, but to relate this growth to the kinds and amounts of instruction being received.

The schools in the study were drawn from three different groups. The Representative Sample of schools is a sample carefully drawn to represent all of the nation's public schools having some of the grades one through six. A second group of schools, the Comparison Sample, is composed of schools that have large proportions of students from high-poverty-level homes, but do not receive special funds to offer compensatory-education services. The third group is the Nominated Sample, composed of schools that were nominated because their instructional programs were thought to have promise as being unusually effective for low-achieving students. During the first operational year of the study, data were collected from 343 schools and about 118,000 students. During the second and third years, the size of the sample will be reduced.

The Cost/Effectiveness Study. Information is being obtained on the resources and services to which each student is exposed during reading and mathematics instruction. The costs of the resources and services are also being obtained. Because the effectiveness of the instructional programs will be determined as part of the Longitudinal Study, will be possible to relate that effectiveness to the cost of each program.

The Participation Study. The purpose of the Participation Study is to determine the relationships among economic status, educational need, and instructional services received. The educational achievement of the students and the services they receive were obtained in the Longitudinal Study, and refined measures of economic status were obtained in the Participation Study. A random sample of 15,000 students was drawn and visits were made to the homes of these students. During the visits, information was collected on the economic level of the home and on the parents' attitudes toward their child's school and learning experiences. Thus, the level of student achievement and services received can be related to the economic level of the home from which the student comes.

The Successful Sites Study. At the end of the second operational year of the Longitudinal Study it will be possible to identify those schools that have been particularly successful in raising the achievement of their students. A sample of the most successful schools will be visited and studied in depth to identify the practices and programs that lead to student success. The programs will be described in detail so they can be considered for adoption at other schools.

The Principal Research Variables Considered in This Report

Family Economic Status is defined in terms of those students counted or not counted using the current Title I allocation criteria. Counted students are from families whose 1976 income falls below the official poverty level or who receive AFDC payments. Institutionalized, neglected or delinquent children or foster children attending public schools are also included. These students number 4.2 million and make up nearly 21 percent of the population. *Student Educational Status* is defined in terms of two different measures derived from the Comprehensive Test of Basic Skills. Both consist of a unitary index of the reading and mathematics subtest scores. The first, specified by Congress for use in this report, measures achievement in terms of a grade-equivalent scale where those achieving one year or more below grade level are categorized as low achievers. Using this measure, there are about 3.8 million low achievers representing 23 percent of the population in grades 2-6. The second is a percentile scale, which permits the inclusion of first-graders. Low achievers are defined variously, using the percentile scale, as those whose achievement places them in the bottom quarter, bottom third, or bottom half of the distribution. *CE Selection Status* is defined in terms of whether or not a student has been selected to participate in a Title I or non-Title I CE program. For the purposes of this report, this measure is limited to selection for reading or math programs. Overall, about 2.9 million students are selected for Title I programs and another 2 million for non-Title I funded services. This represents 25 percent of the population (15 percent in the case of Title I selectees).

Results of the Participation Study

Household data were obtained from the parents of over 15,000 elementary school children. The survey instrument contained 166 informational items. These items have been linked to data items from other SES instruments administered in the schools, and are reported in terms of five major areas of interest. The results focus on national CE selection rates at the student level only. Inferences about how Title I will reach different student groups must be made with caution, since no fixed national criteria for the selection of students and schools currently govern the program. The highlights of each area of interest are reported below.

Economic Status and Selection for CE. On a proportional basis, CE selection is higher among the poor than the non-poor. Students from poor families are selected more frequently for Title I programs than for non-Title I funded services. About 60 percent of the poor children in the nation are not selected to participate in any CE program. Slightly more than 20 percent of all non-poor children are selected for CE; hence, in absolute numbers the non-poor selectees exceed the poor, both for Title I and for other CE services. The estimated percentages and frequencies of students selected for CE by economic status are shown below. In viewing these results, it should be understood that selection for Title I at the school level is based not on economic status but on educational achievement.

Economic Status And CE Selection Status	Projected Percentages	Projected Frequencies
Poor/AFDC		
Title I Selectees	29	1,230,000
Other CE Selectees	11	443,000
No CE	60	2,508,000
Total Poor/AFDC	100	4,181,000
Non-poor		
Title I Selectees	11	1,693,000
Other CE Selectees	10	1,551,000
No CE	79	12,581,000
Total Non-poor	100	15,825,000

Educational Status and Selection for CE. CE selection is proportionately higher for low achievers than for regular achievers, using the grade-equivalent measure specified by Congress. The CE selection pattern for students whose achievement scores place them in the bottom quarter of the percentile distribution closely parallels that for low achievers according to the grade-equivalent scale. Nevertheless, because regular achievers substantially outnumber low achievers as shown below, more regular-achieving students in grades 2-6 are selected for CE than low achievers. Also, over 50 percent of the low achievers are *not* selected for any CE.

Basic Achievement and CE Selection Status	Projected Percentages	Projected Frequencies
Low Achiever		
Title I Selectees	31	1,188,000
Other CE Selectees	15	577,000
No CE	54	2,032,000
Total Low Achievers	100	3,797,000
Regular Achievers		
Title I Selectees	10	1,307,000
Other CE Selectees	9	1,068,000
No CE	81	10,193,000
Total Low Achievers	100	12,568,000

Using the percentile measure for educational status suggests that many regular achievers on the grade-equivalent scale who are selected for CE score below the national median (50th

percentile). When the national median is used as the cut-off point for low achievement, more students below the median are selected for CE than students above the median, as indicated in the following tabulation.

Educational Status and CE Selection Status	Projected Percentages	Projected Frequencies
Below 50th Percentile		
Title I Selectees	25	2,478,000
Other CE Selectees	13	1,280,000
No CE	62	6,071,000
Total Below Median	100	9,829,000
Above 50th Percentile		
Title I Selectees	4	451,000
Other CE Selectees	7	727,000
No CE	89	8,999,000
Total Above Median	100	10,177,000

Economic Status, Educational Status, and Selection for CE. The combined measures of economic and educational status differentiate between students selected and not selected for Title I and other CE services. The greatest proportion selected for Title I and other CE is from the low-income and low-achievement group. However, almost half of these students are not selected for any CE services, as shown below.

Economic Status, Educational Status, and CE Selection Status	Projected Percentages	Projected Frequencies
Poor/AFDC and Below 25th Percentile		
Title I Selectees	41	764,000
Other CE Selectees	13	264,000
No CE	46	871,000
Total Poor/AFDC in Bottom Quarter	100	1,881,000

The group with the next highest selection rates includes the educationally but not economically needy, followed by the economically but not educationally needy, as shown in the following tabulation.

Economic Status, Educational Status, and CE Selection Status	Projected Percentages	Projected Frequencies
Non-poor and Below 25th Percentile		
Title I Selectees	26	815,000
Other CE Selectees	15	472,000
No CE	59	1,799,000
Total Non-poor in Bottom Quarter	100	3,086,000
Poor/AFDC and Above 25th Percentile		
Title I Selectees	20	467,000
Other CE Selectees	8	195,000
No CE	72	1,638,000
Total Poor/AFDC Above Bottom Quarter	100	2,300,000

The group with the lowest proportion of students selected for CE is neither low-income nor low-achieving. However, the tabulation presented below shows that greater numbers of students from this group are selected for services than from either of the other three groups.

Economic Status, Educational Status, and CE Selection Status	Projected Percentages	Projected Frequencies
Non-poor and above the 25th Percentile		
Title I Selectees	7	900,000
Other CE Selectees	8	1,060,000
No CE	85	10,779,000
Total Non-poor Above Bottom Quarter	100	12,739,000

Again, when the national median is used as the threshold for low achievement, more students are classified as educationally needy. As shown below, most CE selectees are from this group, suggesting that the selection process generally pinpoints those students who are below the national median in achievement, particularly if they are from poor families.

Economic Status, Educational Status, and CE Selection Status	Projected Percentages	Projected Frequencies
Poor/AFDC and Below 50th Percentile		
Title I Selectees	36	1,120,000
Other CE Selectees	12	370,000
No CE	52	1,587,000
Total Poor/AFDC Below National Median	100	3,077,000
Non-poor and Below 50th Percentile		
Title I Selectees	20	1,369,000
Other CE Selectees	13	891,000
No CE	67	4,497,000
Total Non-poor Below National Median	100	6,757,000
Poor/AFDC and Above 50th Percentile		
Title I Selectees	10	111,000
Other CE Selectees	6	71,000
No CE	84	922,000
Total Poor/AFDC Above National Median	100	1,104,000
Non-poor and Above 50th Percentile		
Title I Selectees	4	346,000
Other CE Selectees	7	641,000
No CE	89	8,081,000
Total Non-poor Above National Median	100	9,068,000

Demographic Patterns and Other Measures of Economic and Educational Need. Blacks, Hispanics, and other minority students are represented to a greater degree in the low-income or low-achieving categories, and consequently among Title I selectees, than are white students. Economic or educational neediness is distributed evenly among students in all grades; however, CE selection rates are highest in grades 2-4. Poverty and low achievement are related to *urbanism.* Title I selection follows this pattern, which falls heaviest in large cities

and rural areas. Economic or educational need is most heavily concentrated in the South, followed by the Mid-Atlantic and the West. Title I selection rates are even more heavily concentrated in the South, particularly among the poor.

When more inclusive definitions of economic or educational need are used, the students classified as needy more closely resemble the demographic profile of the population of all students than that discussed above. With these expanded definitions, the number of economically or educationally needy students actually selected for CE increases – indicating that the selection patterns do follow economic and educational need. For example, when the poverty threshold is set at 200 percent of the current level, and low achievement is defined as below the national median, only one student out of 100 is selected for Title I who has neither an economic nor an educational need. The Title I selection rate is nine times as great among students with both economic and educational needs, and four times as great among those with just an educational need. Other expanded definitions show similar patterns.

Economic and Educational Status. A significant relationship exists between students' family economic status and educational achievement. The median percentile score for students counted under the Title I allocation formula is 28.5, while for non-poor students the median is 57.0. Similar differences are observed across all demographic groupings of students in this study. As shown in the tabulation below, nearly half the low-income students score in the bottom quarter, as compared to less than one out of five non-poor students.

Economic Status and Educational Status	Projected Percentages
Poor/AFDC	
Bottom Quarter	45
Second Quarter	29
Third Quarter	18
Top Quarter	8
Total Poor/AFDC	100
Non-Poor	
Bottom Quarter	19
Second Quarter	23
Third Quarter	28
Top Quarter	30
Total Non-poor	100

These projections for the nation's elementary school population give only a flavor of the results as reported in the complete text.

CHAPTER I. THE PARTICIPATION STUDY

Introduction

The Education Amendments of 1974 (Public Law 93-380) provide for several studies and surveys to assess possible improvements in the allocation formula and other aspects of the Title I program. The Participation Study, one of these surveys, estimates the number of economically and/or educationally needy children who are and are not selected for participation in Title I programs. The specific words of the enabling legislation found in Section 417 (a) (2) of the General Education Provisions Act as amended are:

> In the case of programs and projects assisted under Title I of the Elementary and Secondary Education Act of 1965, the report under this subsection shall include a survey of how many of the children counted under Section 103 (c) of such Act participate in such programs and projects, and how many of such children do not, and a survey of how many educationally disadvantaged children participate in such programs and projects, and how many educationally disadvantaged children do not.

The Participation Study is related to the Study of the Sustaining Effects of Compensatory Education on Basic Skills (Sustaining Effects Study or SES), and its reports are included in the report series emanating from the SES.

The Survey*

Between January and April, 1977, the parents of over 15,000 public elementary school children were interviewed to collect the household data for the Participation Study. Projections from these data to the universe of 20 million elementary school children in grades 1-6 are appropriate. A stratified two-stage probability sample (schools, and students within schools) constituted the basic sample design for this survey. Overall response was favorable, and the sample recovery rate was 89.5 percent.

Household data for the Participation Study was collected by means of the Household Information Questionnaire (HIQ), which consists of 166 items designed to gather information about family economic status, educational climate in the home, parental satisfaction and involvement with regular and compensatory education services, and descriptive demographic features. These items have been processed and linked to data items from other SES instruments administered in the schools to respond to a series of research questions designed to guide the Participation Study research effort.

*For greater detail on the survey methodology, please see the appendices at the end of this volume.

The Reports

Three reports will be issued using data from the Participation Study. The first report (Technical Report #2 in the SES report series, *Students' Economic and Educational Status and Selection for Compensatory Education*) addresses Congressional concerns about the relationship between students' family economic status, educational achievement, and selection for Title I and/or other CE programs. The report also provides a picture of potential impact on Title I and other CE selection rates of certain alterations in the measures of economic status and educational achievement.

The second report (SES Technical Report #3, *Students' Economic and Educational Status and Receipt of Educational Services*) extends the findings by probing beyond simple CE selection rates to examine the services received. It will focus on the kinds of educational services received (e.g., number of hours of instruction and size of instructional groups) by students of various economic and educational backgrounds.

The third and final report from the Participation Study (SES Technical Report #4 *Students' Home Environment, Educational Status, and Compensatory Education*) considers the extent of parental participation in the educational process in general, and with Title I services in particular, and the relationship between student achievement and home environment.

In this, the first technical report of the Participation Study, the research questions addressed are:

- How does the student's economic status differentiate between students selected and not selected for Title I and other CE services? (Chapter II)
- How does the student's educational status differentiate between students selected and not selected for Title I and other CE services? (Chapter III)
- What is the relationship between students' economic status and educational status? (Chapter IV)
- How do the combined measures of economic and educational status differentiate between students selected and not selected for Title I and other CE services? (Chapter V)
- What changes in the Title I and other CE selection rates occur when certain alternative measures of economic and educational status are used? (Chapter VI)

These questions focus on selection for participation in CE at the *student-level* only. Selection rates for Title I and other CE services are the variables of principal interest. Students served and not served are described in terms of their economic and educational status. In considering these student-level data, it is important to remember that the CE selection criteria vary from school to school and are not part of this study. The policy issues of Title I funding allocations within districts and schools are also outside the purview of this study. That would require representative information on the allocations to schools within districts. Data collected about students and student households in the Participation Study address research questions of a descriptive nature and provide a picture of the numbers and

percentages of those selected for CE by economic and educational status variables. Other questions of interest will be dealt with in subsequent SES reports. The reader is cautioned against drawing conclusions in areas not directly addressed in this report.

The Variables

In the Education Amendments of 1974, Congress specified that a survey be conducted to determine how many children who are counted under the Title I allocation formula participate in Title I programs and projects, and how many do not. Congress also requested in the law that the survey include a count of how many "educationally disadvantaged children" participate in such programs and projects and how many do not. Congress specified the major classifications for these counts of students, which are the principal variables for this study, namely, family economic status, student's educational status, and CE selection status.

Family Economic Status. Family economic status is the generic term given to the variable that identifies children counted under the Title I allocation formula. Counted children, as identified in Section 103 (c) of the General Education Provisions Act as amended, are those:

- in the school district of the local educational agency from families below the poverty level,
- in the school district of the local educational agency from families in excess of the current criteria of poverty, who receive payments under the program of aid to families with dependent children (for allocation purposes, two-thirds of the number of the AFDC children are counted), and those
- in the school district of such agencies living in institutions for neglected or delinquent children or being supported in foster homes with public funds.

Income is the principal indicator of a student's family economic status. The Federal Government's official definition of poverty -- the Orshansky poverty index -- is the measure of income used to determine counted children under the Title I allocation formula.* Therefore, the determination of a student's economic status involves an analysis of family *money* income. For the Participation Study, data on income are limited to money received before payments for personal income taxes and deductions for Social Security, union dues, Medicare, and the like.

Money income used to determine a family's economic status is the sum of the amounts received from earnings (including losses to the self-employed from their own farm or nonfarm operations); Social Security and public assistance payments; Supplemental Security income; dividends, interest, and rent (including losses); unemployment and workers' compensation; government and private employee pensions; and other periodic income. (Certain money receipts, such as capital gains, are not included.) These procedures for determining money income are consistent with those employed by the U.S. Bureau of the Census.

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*(See Footnote on next page.)

Table I-1

Comparison Of Estimated Population Percentages Of Total Family Income For The Participation Study And The 1975 And 1976 Estimates From The Current Population Surveys

Income Range	CPS Estimates of 1975 Income (%)	CPS Estimates of 1976 Income (%)	Estimates of 1976 Income for Participation Study Sample † (%)
Under $5,000	12.0	10.4	11.4
$5,000 to $6,999	8.3	7.8	7.3
$7,000 to $9,999	12.8	11.8	11.7
$10,000 to $14,999	22.3	20.2	21.8
$15,000 to $19,999	18.7	19.1	21.1
$20,000 to $49,999	24.3	28.8	25.5
$50,000 and Over	1.4	1.9	1.1
Mean Income	$15,546	$16,870	$15,566

† Note on Reliability of the Data. These figures are estimates derived from a sample of public school student households. They are subject to errors due to sampling variability, incorrect reporting and non-reporting of items. This note of caution pertains to all tables found in this report.

*The measure of poverty used in the allocation formula was originally developed by Mollie Orshansky of the Social Security Administration in 1964 and was, adopted with revisions in 1969 by the Office of Management and Budget as the Federal Government's official statistical measure of poverty. The measure is built around the Department of Agriculture's economy food plan of 1961 and the national average ratio of family food expenditures to total family after-tax income as measured in the 1955 Household Food Consumption Survey. It consists of 124 separate poverty cutoffs differentiating families by size, number of children, age and sex of head (this concept is being phased out of Census enumeration and data presentation), and farm or non-farm residence. The cutoffs are updated annually by changes in the Consumer Price Index. The weighted average poverty cutoff for a non-farm family of four in 1976 was $5,815. According to the Census Bureau's report based on the March 1977 Current Population Survey (CPS), in 1976 approximately 25 million persons, or 11.8 percent of the population, were poor by this definition. (U.S. Bureau of the Census, *Current Population Reports*, Series P-60, No. 107, "Money Income and Poverty Status of Families and Persons in the United States; 1976" (Advanced Report) U.S. Government Printing Office, Washington, D.C. 1977.)

As demonstrated in Table I-1, the distribution of total family income from the Participation Study closely matches the 1975 and 1976 income estimates from the Current Population Surveys (CPS) conducted by the U.S. Bureau of the Census. The average family income reported for 1976 by the Participation Study is $15,566, while the CPS reported the 1976 national average income to be $16,870 — a difference attributable at least in part to the younger, less affluent sub-population (generally families with at least one child in grades 1-6) in the Participation Study.

To determine whether or not a student's economic status is above or below poverty, the total money income of the student's family is compared to the 1976 Orshansky index. The current poverty matrix is based on the minimal housing and nutritional needs of a family of four. The cash income required to meet those needs establishes the point that separates the poor and non-poor. A system of equivalence multipliers expands this poverty cutoff point into 124 cells of the poverty matrix, representing various combinations of size of family and household, sex of family head and place of residence. If total family income drops below the cutoff point within its cell, a family is identified as poor. Families with incomes above the cutoff point are identified as non-poor. For 15,302 students representing over 14,000 families in the Participation Study, 17 percent are counted as poor (see Table I-2). Projected to the national population, this means that approximately 3.4 million students between the ages of 5 and 12 come from families at or below the poverty line.

Table I-2

Estimated Population Numbers (In Thousands) And Percentages Of Students In Families Above And Below 1976 Orshansky Poverty Cufoff Point

Economic Status	Projected Frequency	Projected Percentage
Poor	3,381	16.9
Non-Poor	16,625	83.1
Totals	20,006	100.0

The projected percentages and numbers of elementary school children in families below the poverty line are similar to estimates from the Bureau of Census' 1976 Survey of Income and Education (SIE) and from the 1977 CPS for similar populations. The 1976 SIE estimated the total percentage of children between the ages of 6 and 13 in families below poverty to be 15.5, and the 1977 CPS placed the 1976 percentage for the same age group at 16.3. Since the Participation Study sample consists of children between 5 and 12 years of age, and since younger children are more likely to be from low-income families than older children, the slightly larger proportion of poor children projected by the Participation Study is expected.

These results show only a portion of the children counted in the Title I allocation formula. Since the formula also includes two-thirds of the children whose families receive AFDC where the total family income exceeds the poverty level, as well as institutionalized, neglected or delinquent children and foster children attending public schools, the economic status variable for the Participation Study must also consider these factors. Therefore, all students from families who receive AFDC support and all neglected, delinquent, and foster children are counted as children from low-income families. As seen in Table I-3, including these children in the count increases it by about 4 percent, or 800,000 students in grades 1-6.

Table I-3

Estimated Population Numbers (In Thousands) And Percentages Of Students Classified By The Title I Allocation Criteria

Economic Status	Projected Frequency	Projected Percentage
Poor/AFDC	4,181	20.9
Non-Poor	15,825	79.1
Totals	20,006	100.0

The economic status variable therefore permits a distinction between students who are classified by the Title I allocation criteria as poor/AFDC or low economic status students (students who come from families whose income falls at or below the Orshansky poverty index, students from families who receive AFDC, and institutionalized neglected or delinquent children and foster children who attend public schools) and students who are classified as non-poor. This variable divides the student population into two groups of unequal size. POOR/AFDC students number approximately 4,181,000 and make up 21 percent of the student population in grades 1 through 6. NON-POOR students number 15,825,000, comprising 79 percent of the nation's elementary school children. (Throughout this report, terms such as "students' economic status" or "poor students" will be used. These terms are used for ease of expression, to avoid repeating such phrases as "students whose family economic status is poor.")

While this measure of family economic status is a critical element in the allocation formula, it is not the only possible measure of economic status, and it has come under some criticism lately. Therefore, other economic factors are examined in Chapter VI of this report to determine the potential impact of possible changes in the criteria that determine economic status. These alternate poverty definitions represent possible changes in the Orshansky index. The basic alternates presented are those discussed in *The Measure of Poverty* (U.S. DHEW, 1976), a report to Congress requested in the same Education Amendments of 1974 that ordered the Participation Survey.

Educational Status. Since Congress wants to know "how many educationally disadvantaged children participate in such programs and projects, and how many educationally disadvantaged children do not," (Section 417 (a) (2) of the General Educational Provisions Act as amended), educational status is a second major research variable for the Participation Study.

One measure of educational status is the Basic Achievement variable. This variable corresponds to the definition given by Congress, which says that "Educationally disadvantaged children refers to children who are achieving one or more years behind the achievement expected at the appropriate grade level for such children", (Section 4.7 (a) (2) of the General Educational Provisions Act as amended). This Congressionally mandated definition differs from that required under current Title I regulations for the selection of students for Title I programs. For example, Title I regulations emphasize selection of students whose achievement is "below average".

Student achievement was measured by the Comprehensive Tests of Basic Skills (CTBS). This test was selected after a careful review of available standardized achievement tests, because of its relative freedom from cultural bias, the availability of national normative data, and its widespread use. Educational attainment for each student in the Participation Study sample has been determined by converting the student's total achievement score into a grade equivalent score based on the test publisher's norms. This achievement score is a unitary index created by summing the reading and mathematics scores from the CTBS. Separate analysis of the reading and math subscales of the CTBS will be made in a subsequent report; however, an analysis indicates that CE selection rates show few substantive differences between reading and math subscales and the combined index.

Table I-4 presents the number and percentage of students in grades 2 through 6 whose achievement is one year or more below grade level (low achievers) or whose achievement is above this cutoff point (regular achievers).* As indicated, slightly fewer than one in four students achieve at a level one year or more below that expected for their grade level.

Table I-4

Estimated Population Numbers (In Thousands) And Percentages Of Students Achieving Above And Below Achievement Cutoff

Basic Achievement †	Projected Frequency	Projected Percentage
Regular Achiever	12,568	76.8
Low Achiever	3,797	23.2
Totals	16,365	100.0

† Entails grades 2-6 only.

*Since the achievement tests used to determine educational status were administered at the beginning of the school year, it is not meaningful to include first-graders in this measure of Basic Achievement.

A major drawback in using the grade equivalent measure for educational status is that it underestimates low achievement in the early grades. This distorts the educational attainment pattern among elementary school children. Table I-5 shows the disproportionate distribution of low achievement by grade level using the Basic Achievement variable.

Table I-5

Estimated Population Percentages Of Low-Achieving Students By Grade Of Student

Grade	Projected Percentage of Low Achievers
Second	5.9
Third	17.3
Fourth	27.7
Fifth	26.1
Sixth	35.4

To include first-graders as well as to examine various alternate achievement variables, educational status is also measured in terms of percentile scores. While the Basic Achievement variable is necessary to respond to the Congressional mandate, the use of percentile scores provides a more accurate statement about overall achievement than does the grade equivalent measure and it permits the inclusion of all students in grades 1-6 in any tabulation. Table I-6 presents the percentile distribution in the bottom quarter by grade. The presentation of achievement data in this manner eliminates the distortion of low achievement by grade shown in Table I-5.

Table I-6

Estimated Population Percentages Of Students Achieving In The Bottom Quarter By Grade Of Student

Grade	Projected Percentage of Students in the Bottom Quarter
First	25.7
Second	24.5
Third	24.0
Fourth	25.8
Fifth	24.0
Sixth	23.5

CE Selection Status. A third major variable examined in this report is *selection for participation in CE programs.* The variable is based on the reading and mathematics Compensatory Education Roster completed by local school coordinators for each student. Students were recorded as having been selected or not selected for Reading and/or Mathematics compensatory programs under the various funding sources – Title I, Other Federal, State, District, and Private. This information yields the following CE selection categories for analysis: Title I Only; Title I, and Other CE; Other CE Only; No CE at a School Receiving CE Funds; and NO CE at a School Not Receiving CE Funds.

Table I-7 presents the projected numbers and percentages of elementary school children in these various categories. Almost 15 percent of all children are identified as having been selected for Title I funded programs in reading and/or math. Another 10 percent have been selected for CE programs funded by sources other than Title I. *Projecting these percentages to the national population, the Participation Survey indicates that approximately 25 percent of elementary school students are selected for CE.** This projection compares favorably with the figure presented by the National Institute of Education's study, which reported

Table I-7

Estimated Population Numbers (In Thousands) And Percentages† Of Students Selected And Not Selected For Participation In Compensatory Education Programs

Compensatory Education Selection Status	Projected Frequency			Projected Percentage		
		Title I			Title I	
Title I Only	2,521	2,941	All CE 4,941	12.6	14.7	All CE 24.7
Title I and Other CE	420			2.1		
Other CE Only	2,000			10.0		
Not Selected for CE at CE School	12,264			61.3		
Attending Non-CE School	2,801			14.0		
Totals	20,006			100.0		

†The projected percentages can be interpreted as "participation rates"; for example, 14.7 percent of all students are selected for participation in Title I programs.

*Frequently in this report the percentages of students selected for Title I and for other CE will be added to give an indication of the number of students receiving some compensatory education. It should not be inferred that the *amount* of CE is similar from program to program. The next report in this series will examine the nature of services received by students selected for these different programs.

that 19.5 percent of the students in the Title I districts received CE services in either Title I or state programs. The NIE survey represents grades K through 8 and, as they note, "Compensatory education students are concentrated in grades 1-6, with significantly lower percentages in kindergarten and junior high school grades 7 and 8" (NIE, 1977, p. 13). Thus, a higher proportion of students would be identified for CE from the participation survey, which is limited to grades 1-6, than from the NIE survey, which includes K-8.

The research questions presented earlier require an examination of Title I funded programs and all CE programs. Therefore, it is important to note that Title I and CE are not used synonymously. Title I refers only to those programs funded by Title I money, while CE includes all compensatory programs, no matter what the source of funding. Title I is a subset of CE; this report discusses selection for both Title I programs and other CE programs, singly and in combination.

Demographic Variables. In addition to the description of the economic and/or educational status of students who are and are not selected for Title I and other compensatory services, this report also analyzes these variables relative to the student's grade, age, race, sex, size of family, geographic location, language, and urbanism. Tables I-8 and I-9 describe the sample in terms of these demographic characteristics. Figures I-1 and I-2 are maps of the geographic regions used in the report.

Summary

The variables discussed in this report include Family Economic Status, Educational Status, and CE Selection Status. Family Economic Status defines those students classified according to the allocation criteria as specified in the Education Amendments. Students classified as poor are from families whose income is below the 1976 Orshansky index or from families who receive AFDC, or are neglected, delinquent, or foster children attending public schools. All others are classified as non-poor.

Educational Status differentiates children who achieve one year or more below grade level (low achievers) from children who achieve above this cutoff (regular achievers). Another measure of educational status is the tabulation of student percentile scores.

CE Selection Status identifies whether or not a student has been selected for participation in compensatory education. This variable also permits the isolation of those students selected for Title I programs as opposed to those selected for any other CE, regardless of funding source.

Table I-8

Estimated Population Percentages Of Students
With Various Numbers Of Related Individuals In A Household; Racial/Ethnic Group,
Grade, And Sex Of Student

Demographic Characteristic	Percentage
Related Individuals in a Household	
Three or less	12.0
Four	29.6
Five	25.9
Six	16.0
Seven	8.0
Eight or more	8.5
Racial/Ethnic Group	
White	77.9
Black (non-Hispanic)	13.9
Hispanic	6.1
Asian American	1.3
Native American	0.8
Grade	
First	18.2
Second	16.2
Third	16.5
Fourth	15.5
Fifth	15.3
Sixth	18.3
Sex	
Female	48.8
Male	51.2

Table I-9

Estimated Population Percentages Of Students
By Degree Of Urbanism, Geographic Region, And Age

Demographic Characteristic	Percentage
Urbanism	
City over 200,000	15.3
City from 50,000-200,000	12.6
City Under 50,000	30.5
Suburb	13.5
Rural	28.1
Geographic Region	
Northeast	19.3
New England (7.6%)	
Metropolitan Northeast (11.7%)	
Mid-Atlantic	12.0
South	27.1
Southeast (15.7%)	
South Central (11.4%)	
Midwest	26.4
North Midwest (18.0%)	
Central Midwest (4.8%)	
North Central (3.6%)	
West	15.1
Pacific Southwest (12.2%)	
Pacific Northwest (2.9%)	
Age	
5-6 years old	15.8
7 years old	15.7
8 years old	16.2
9 years old	15.3
10 years old	15.6
11-12 years old	21.3

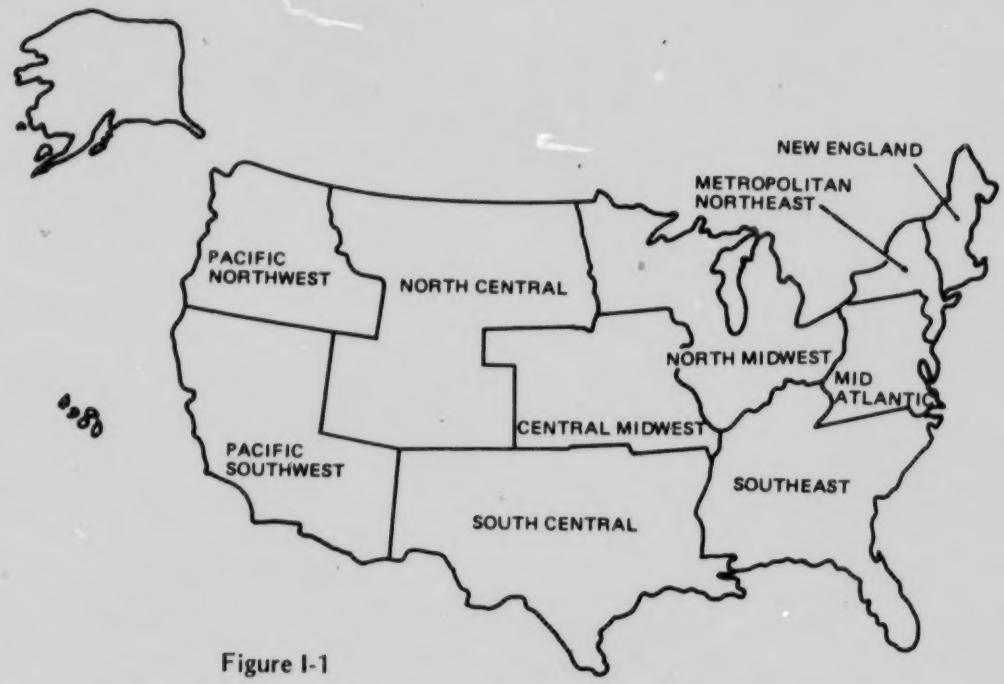

Figure I-1

Ten Geographic Regions Of The Participation Study

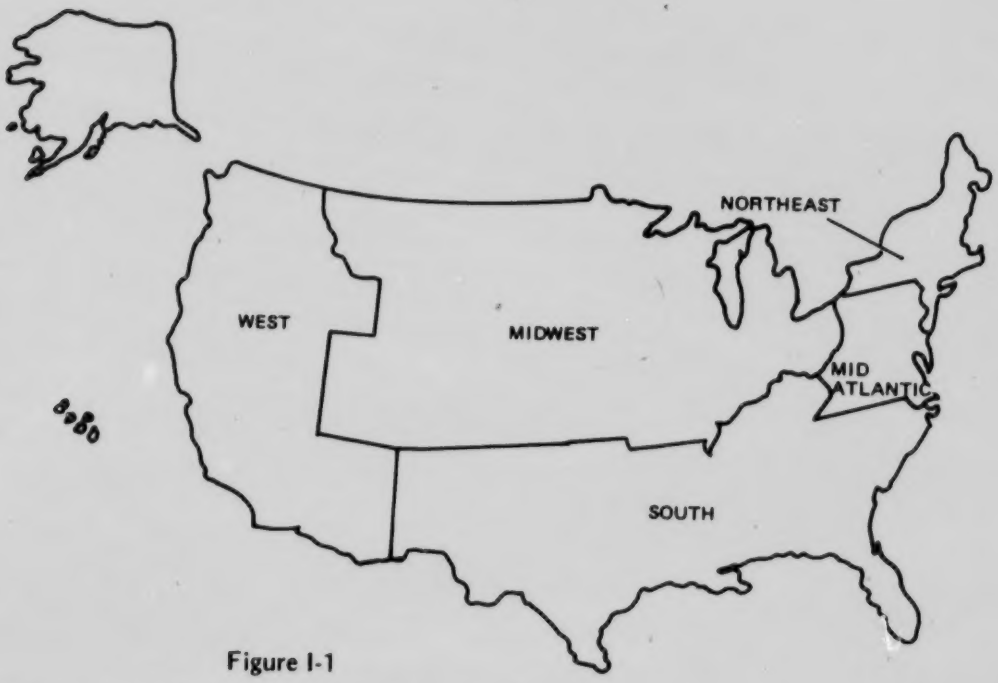

Figure I-1

Five Geographic Regions Of The Participation Study

CHAPTER II. ECONOMIC STATUS AND COMPENSATORY EDUCATION SELECTION

Little is known at the individual level about the relationship between family economic circumstances, school achievement, and selection for participation in CE programs in general or Title I programs in particular. Projections of the data from the Participation Study provide the opportunity to address these relationships for the first time. This chapter is divided into two parts: the first projects the numbers and percentages of POOR/AFDC students and NON-POOR students selected for CE (Title I or other funded programs), and the second presents a demographic profile of these students.

Family Economic Status and Selection for Compensatory Education

Figure II-1 presents estimated joint proportions of students in grades 1-6 who are from POOR/AFDC families (21%) or NON-POOR families (79%) and who are or are not selected for CE programs. From Figure II-1 it can be seen that more non-poor students are selected for Title I (9 out of every 100) than poor students (6 out of 100). However, selection for participation at the school level is based not on student economic status but on educational status, and there is a larger pool of non-poor students from which to draw. There is an even larger difference between the number of non-poor students selected for non-Title I CE (8 out of 100) and the number of poor students selected for these services (2 out of 100). CE for students from non-poor families is equally divided between Title I and other funding services, but CE for students from poor families appears to be more dependent on Title I programs.

Eleven of every 100 students are from families that are poor and are in schools that have some form of CE, but are not selected for these programs. Half of all students are from families that are non-poor but attend schools where some form of CE is offered. Fewer than two of every hundred students are poor and attend schools where no CE is offered.

Table II-1 gives national estimates of the numbers and conditional proportions of poor and non-poor students who are selected for Title I and other CE programs. Over 1.2 million poor students (29 percent of all poor students) are selected for Title I programs. More than 400,000 poor students (or 11 percent of all poor students) are selected for other CE. Over half of the poor students in the country (53%), or nearly 2.2 million, are not selected to participate in these programs, although they attend schools where CE is offered. Only 7 percent of the poor students (300,000) attend schools where no CE programs are available.

Among the non-poor, 1.7 million students are selected for Title I programs. While this comprises slightly more than 10 percent of all non-poor students, the actual number of selectees is 38 percent higher than for poor students. Over 1.5 million non-poor students are selected for other CE programs. Again, the percentage is relatively small, less than 10 percent, but the number represents 3½ times the number of poor students selected for similar programs. The largest number of all students, over ten million, are non-poor, attend schools where CE programs are offered, and are not selected to participate. Finally, over 2.5 million students are non-poor and attend schools where no compensatory service is available.

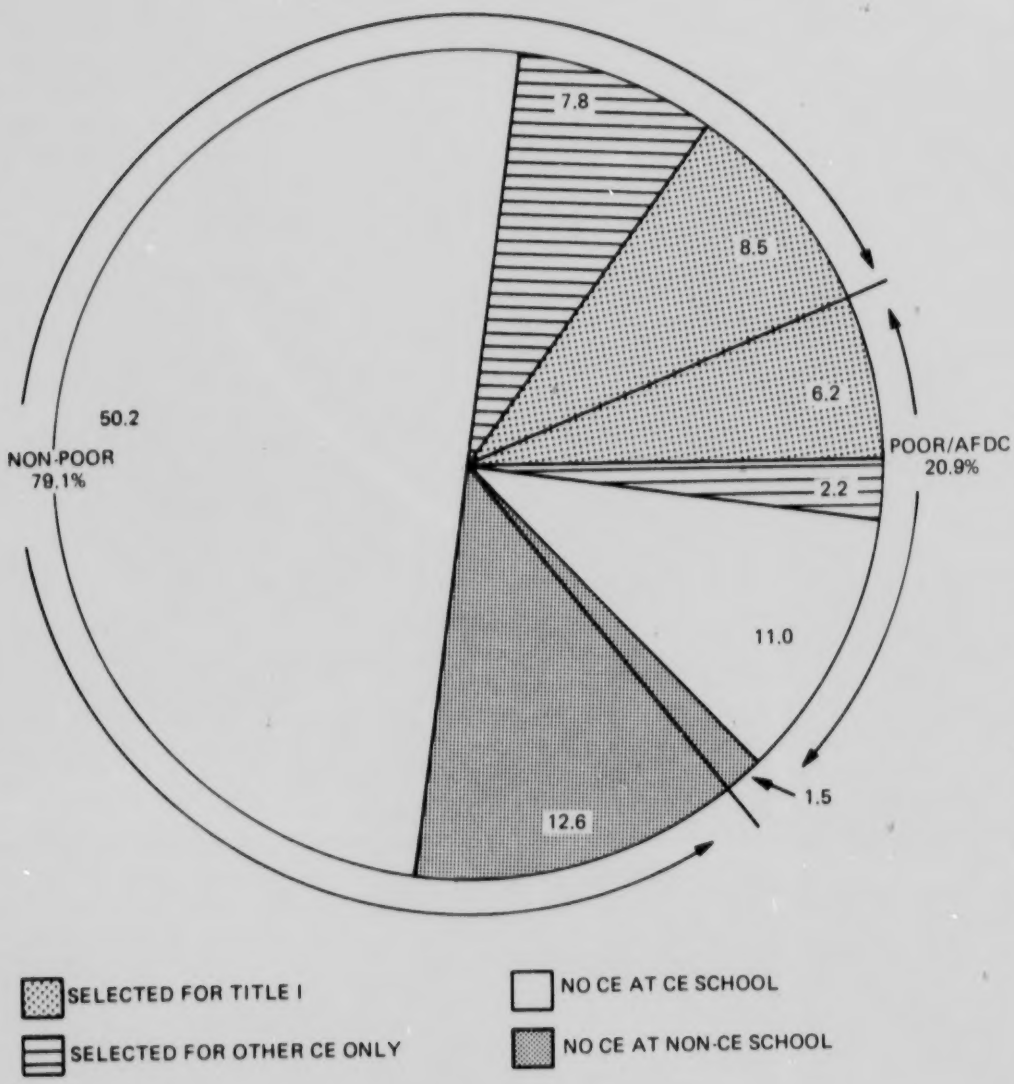

Figure II-1

Estimated Population Percentages of Students' Compensatory Education Selection Status And Family Economic Status

Table II-1

Estimated Population Percentages And Numbers (In Thousands) Of Students' Compensatory Education Selection Status By Family Economic Status*

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTAL (%)
POOR/AFDC	29.4 (1,230)	10.6 (443)	52.6 (2,199)	7.4 (309)	100.0 (4,181)
NON-POOR	10.7 (1,693)	9.8 (1,551)	63.6 (10,065)	15.9 (2,516)	100.0 (15,825)
Total Counts	2,923	1,994	12,264	2,825	20,006

*The slight differences from the frequencies listed previously for CE Selection Status are due to rounding errors.

It can be seen that a greater proportion of poor students than non-poor students are selected for Title I programs. However, the non-poor outnumber the poor among Title I selectees by almost 3 to 2. The proportion of poor and non-poor students selected for CE services not funded by Title I are about equal, but again the number of non-poor exceeds the poor by nearly 3 to 1. Both proportionally and in absolute numbers, more non-poor than poor students attend schools where CE services are offered but are not selected for these services, or attend schools where such services are not available.

The selection rate for Title I programs among the poor is higher than among the non-poor, but due to the size of the non-poor group more of these students are actually selected for services. Also, many of the non-poor CE selectees are "near poor", i.e., their total family income is below 125 percent of the current Orshansky index. Should the poverty line be raised by 25 percent, not only would the proportion of poor served by Title I exceed the non-poor, but so would the absolute number. (See Chapter VI for more detail.)

In the preceding discussion, CE selection rates for all students were examined. It is also appropriate to analyze just those students who are in schools receiving Title I funds. Table II-2 provides estimates of CE selection status by family economic status for those students. More than 1 in 3 poor students in a Title I school are selected for Title I programs, while 17 percent of the non-poor students are selected. Within Title I schools, poor students are being selected for Title I at a somewhat higher rate than non-poor students. Since the ratio of poor students to all students in Title I schools is slightly more than 1:4, the number

of non-poor will generally be higher than the number of poor being selected for these services. These data also indicate that a slightly greater proportion of non-poor students (11%) than of poor students (9%) is selected for other CE in Title I schools.

Table II-2

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status In Title I Schools*

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE (%)	TOTALS (%)
POOR/AFDC	35.8	9.4	54.8	100.0
NON-POOR	16.9	10.8	72.3	100.0

*The universe sampled was not based on all Title I schools; therefore, no total student counts have been estimated.

Demographic Profiles

Racial/Ethnic Group. Table II-3 presents the estimated population percentages of students selected for CE by family economic status and racial/ethnic group. Among white students from poor families, more than 1 in 4, or nearly 27 percent, are selected for Title I services. Another 10 percent of white students from poor families are selected to receive other CE services.

One in every three black students from poor families is selected to participate in Title I funded programs. Nine out of 100 poor black students (a proportion smaller than for white students) are selected to receive other CE programs.

Twenty-nine percent of all poor students with an Hispanic heritage are selected to participate in Title I programs. Another 18 percent of the poor Hispanic students are selected for other CE programs. This is by far the largest proportion of poor students selected for other CE programs. Many Hispanics are selected for bilingual programs. Technically, federally funded bilingual programs should not be considered compensatory; however, it appears that many local coordinators who collected data for this study may have considered bilingual programs as compensatory. Very few, 2 percent of the poor Hispanic population, attend schools where no CE is available.

Among the non-poor, a very small proportion of whites, less than 10 percent, is selected for Title I participation. A slightly larger percentage, nearly 10 percent of the non-poor whites, are selected for other CE services. Nearly 16 percent of all non-poor whites attend schools where no CE services are available.

Table II-3

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Racial/Ethnic Group

Economic Status	CE Selection Status: Title I/Title I Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/ADFC					
Racial/Ethnic Group					
White	26.5	10.1	55.1	8.3	100.0 (2,011)
Black	32.7	8.8	51.3	7.3	100.1 (1,501)
Hispanic	28.9	18.2	51.0	2.0	100.1 (556)
Other*	38.4	6.2	35.0	20.3	99.9 (113)
NON-POOR					
Racial/Ethnic Group					
White	9.4	9.7	65.4	15.5	100.0 (13,546)
Black	18.8	8.3	54.9	17.9	99.9 (1,266)
Hispanic	24.0	17.8	53.6	4.6	100.0 (696)
Other*	5.2	4.9	42.5	47.4	100.0 (317)
Total Counts (Thousands)	2,941	2,000	12,264	2,801	20,006

*"Other" category includes Native Americans and Asian Americans. The sample sizes for these groups preclude individual analyses. Because of the heterogeneity of this category and the small cell sizes in the table, the figures should be interpreted with caution.

The proportion of non-poor blacks who are selected for Title I is nearly 19 percent. As with the poor, a smaller proportion of non-poor blacks (8%) than non-poor whites (10%) is selected to receive other CE. Nearly 18 percent of all non-poor blacks attend schools where no CE is available.

Twenty-four percent of the non-poor Hispanic — the largest percentage among the non-poor — are selected for Title I funded programs. The possibility that local coordinators considered bilingual programs as compensatory can again be seen in this group, for 18 percent of these non-poor Hispanics, or nearly as many as in the poor Hispanic group, are assigned to other CE programs. As with the poor Hispanics, a very small portion of non-poor Hispanics attend schools where no CE is available.

Estimates of the student population percentages in Table II-4 reinforce what has been inferred about the Hispanic group from the data in Table II-3. A large number of students whose families speak Spanish, both poor and non-poor, are indicated as being selected for CE programs. Poor as well as non-poor Spanish-speaking students are selected in large numbers for Title I or other CE programs.

Grade and Age. Table II-5 contains estimates of the population percentages of students selected for CE by family economic status and grade. The proportion of poor students, no matter what their grade, selected for Title I programs is greater than the proportion of non-poor students. In most cases, the proportion is more than 2 to 1. The largest proportion of poor students selected for Title I programs occurs in the third and fourth grades, where more than 1 in 3 students are selected. In these two grades, the proportion of students selected for other CE programs is the smallest — less than 10 percent.

Selection for Title I programs tapers off in the fifth and sixth grades and is not offset by an increase in selection for participation in other CE programs. In fact, for a poor student in the sixth grade the chance of attending a school not receiving CE funds is nearly one in ten. For such a student in the first grade, the chance is less than one in 16.

Among non-poor students, the same pattern of selecting middle-grade children for Title I programs is found. Hence, any student in grades 2-4 is more likely to be selected for Title I than students in other grades.

An examination of the age data provides corresponding results (see Table II-6). The student whose age would most likely place him or her in grades 2-4 is selected most frequently for Title I programs. The older students, particularly the 12-year-olds, have the smallest Title I selection rate. However, that low rate is offset because a considerable proportion of the 12-year-olds in grades 1-6 are selected for other CE efforts.

Sex of Student. Table II-7 presents the estimated population percentages of students selected for CE by family economic status and sex of student. Among both poor and non-poor, male students are more likely than female students to be selected for either Title I or other CE. It should be remembered that generally female students score higher on achievement tests (80 percent are regular achievers) than do males (75 percent are regular achievers), and consequently are less likely to be selected for these programs.

Table II-4

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Language

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/ADFC					
Language Regularly Spoken in Home					
English	29.2	9.3	53.2	8.3	100.0 (3,445)
Spanish	30.4	17.2	51.6	0.9	100.1 (577)
Other	30.1	15.4	43.0	11.5	100.0 (159)
NON-POOR					
Language Regularly Spoken in Home					
English	10.2	9.5	64.2	16.2	100.1 (14,353)
Spanish	22.5	17.0	56.9	3.7	100.1 (791)
Other	9.6	8.3	58.5	23.6	100.0 (681)
Total Counts (Thousands)	2,941	2,000	12,264	2,801	20,006

Table II-5

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Grade

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%)	(Thousands)
POOR/AFDC						
Grade						
First	27.8	12.0	53.4	6.9	100.1	(757)
Second	31.8	9.7	51.8	6.7	100.0	(673)
Third	34.2	9.6	49.5	6.7	100.0	(723)
Fourth	33.6	9.9	50.1	6.5	100.1	(719)
Fifth	26.3	11.0	55.7	7.0	100.0	(640)
Sixth	22.5	11.8	54.9	10.8	100.0	(669)
NON-POOR						
Grade						
First	8.1	9.6	69.5	12.8	100.0	(2,896)
Second	13.5	12.8	60.1	13.7	100.0	(2,579)
Third	11.4	10.6	59.5	18.5	100.0	(2,564)
Fourth	13.3	9.1	61.6	16.0	100.0	(2,405)
Fifth	12.1	9.2	61.8	17.0	100.1	(2,437)
Sixth	7.3	8.0	67.4	17.3	100.0	(2,944)
Total Counts (Thousands)	2,941	2,000	12,264	2,801		20,006

Table II-6

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Age

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%)	(Thousands)
POOR/AFDC						
Age						
5-6	26.9	10.1	55.1	7.9	100.0	(602)
7	30.0	12.0	51.3	6.7	100.0	(636)
8	33.7	9.1	50.7	6.5	100.0	(702)
9	31.1	10.5	52.1	6.2	99.9	(694)
10	29.5	8.8	54.1	7.6	100.0	(665)
11	26.7	11.3	53.6	8.4	100.0	(644)
12	24.6	17.4	47.6	10.4	100.0	(238)
NON-POOR						
Age						
5-6	7.4	9.1	69.7	13.8	100.0	(2,595)
7	12.5	12.8	61.3	13.5	100.1	(2,516)
8	11.2	10.6	60.2	18.1	100.1	(2,516)
9	12.1	8.9	62.2	16.8	100.0	(2,374)
10	12.7	8.6	60.9	17.7	99.9	(2,469)
11	9.0	8.3	67.3	15.4	100.0	(2,738)
12	11.2	13.3	59.6	15.7	99.8	(617)
Total Counts (Thousands)	2,941	2,000	12,264	2,801		20,000

Table II-7

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Sex Of Student

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/AFDC					
Sex of Student					
Female	28.2	9.6	54.2	8.0	100.0 (2,070)
Male	30.6	11.8	50.8	6.8	100.0 (2,111)
NON-POOR					
Sex of Student					
Female	9.0	9.1	66.3	15.7	100.1 (7,723)
Male	12.5	10.6	60.9	16.0	100.0 (8,102)
Total Counts (Thousands)	2,941	2,000	12,264	2,801	20,006

Urbanism. Some interesting estimates of population percentages of students selected for CE by family economic status and urbanism are shown in Table II-8. Poor residents of cities over 200,000 in population, and poor residents of rural areas, have the highest CE selection rates, 45 percent and 46 percent, respectively. In the case of poor rural students a greater proportion, 36 percent, is selected for Title I than is selected among poor students in large cities. However, a slightly smaller percentage of poor rural students than of poor students in large cities are selected for other CE programs.

Title I selection rates are smallest for the poor in medium-sized cities and suburbs. However, in each of these cases, a larger proportion of poor students (13 percent and 16 percent, respectively) is selected for other CE than is selected from other locations. This suggests that school districts lacking large numbers of poor students utilize other federal, state, or local funds for their compensatory efforts. Another sign that schools in medium-sized cities do not receive Title I funds to the same degree as others is that nearly 1 our of 5 poor students in medium-sized cities attend schools where CE services are not available.

Table II-8

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Urbanism

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/AFDC					
Urbanism					
City Over 200,000	32.9	12.0	50.1	5.0	100.0 (1,334)
City From 50,000–200,000	15.4	12.7	52.0	19.8	99.9 (443)
City Under 50,000	27.0	7.9	57.2	7.8	99.9 (1,133)
Suburb	17.9	15.7	61.3	5.1	100.0 (238)
Rural	36.2	9.6	48.9	5.2	99.9 (1,033)
NON-POOR					
Urbanism					
City Over 200,000	15.6	8.0	65.3	11.1	100.0 (1,757)
City From 50,000–200,000	4.6	9.8	50.4	35.2	100.0 (2,105)
City Under 50,000	12.0	6.9	65.7	15.5	100.1 (4,969)
Suburb	5.3	12.0	67.9	14.8	100.0 (2,421)
Rural	13.2	12.5	64.4	9.9	100.0 (4,573)
Total Counts (Thousands)	2,941	2,000	12,264	2,801	20,006

Small cities (under 50,000) rely heavily on Title I compensatory funds. More than 1 in 4 poor students from these cities are selected for Title I services. However, less than 8 percent, the smallest proportion of all poor groups, is selected for other CE programs. Among the non-poor, the same relationships generally hold.

Geographic Region. Table II-9 shows that between 24 percent and 27 percent of all poor students outside the South are selected for Title I participation. In the South, the figure is 38 percent. In the Northeast, the Mid-Atlantic, and the West, more poor students are selected for other CE programs than in the South, which more than compensates numerically for the disproportionate number of poor Southern students selected for Title I. However, in the Midwest, this proportion is not equal to that of the other three regions, and so the overall CE selection rate is the lowest. The South has the smallest proportion of poor students selected for other CE efforts. Title I programs are the principal CE programs for poor students in the Southern states.

There is no regional difference in the non-poor Title I selection rates, but there is a disparity for other CE rates. The Northeast has a much higher selection rate for other CE (21%) than the West (15%), which in turn is far greater than that for the other three regions. This finding, in part, might be related to the large number of Hispanic Students in these two regions and the general, though incorrect interpretation of bilingual programs as compensatory.

Summary

The critical research question examined in this chapter is: "How does student economic status differentiate between those students selected and those not selected for Title I and other CE services?". The data from the Participation Study suggest that on a proportional basis CE selection is higher among the poor than among the non-poor. Students from poor family backgrounds tend to be more dependent on Title I programs, while students selected for service from non-poor families are more equally divided between Title I and other CE programs. More than 50 percent of the poor children in the nation attend schools where CE is offered but they are not selected to participate. Slightly more than 20 percent of all non-poor children are selected for CE; hence, in absolute numbers the non-poor exceed the poor selectees, both for Title I and other CE services.

Selection rates for Title I, regardless of economic status, are higher among minorities than among whites; higher among Spanish-speaking than among English-speaking; higher in the second through fourth grades than in either earlier or later grades; and higher among students aged 7 to 10. Selection is slightly lower for females than males; lower in medium-sized cities than other locations; and lower in the Midwestern region than the other four regions. The selection rates for other CE programs, again regardless of economic status, tend to be higher for Hispanics and whites than for blacks; higher in the suburbs and medium-sized cities than in other locations; and lower in the South and Midwest than in other regions of the country.

Table II-9

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Geographic Region

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/AFDC					
Geographic Region					
Northeast	24.2	14.4	58.9	2.6	100.1 (853)
Mid-Atlantic	23.7	17.8	48.6	10.0	100.1 (330)
South	38.1	2.9	50.1	8.9	100.0 (1,443)
Midwest	24.2	6.1	63.4	6.3	100.0 (832)
West	26.9	23.8	39.3	10.1	100.1 (723)
NON-POOR					
Geographic Region					
Northeast	9.9	21.1	56.0	13.0	100.0 (2,944)
Mid-Atlantic	8.9	7.6	75.5	7.9	99.9 (2,057)
South	11.3	4.1	64.6	20.0	100.0 (3,988)
Midwest	11.3	5.8	71.5	11.4	100.0 (4,478)
West	11.4	14.9	46.0	27.8	100.1 (2,358)
Total Counts (Thousands)	2,941	2,000	12,264	2,801	20,006

CHAPTER III. EDUCATIONAL STATUS AND COMPENSATORY EDUCATION SELECTION

This chapter focuses on student educational status and selection for participation in Title I and/or other CE programs. Two independent variables indicating educational achievement status will be used in this chapter. The first, Basic Achievement, divides the student population into two groups: those whose achievement is one year or more below their grade level and who are identified as *low achievers*, and those whose achievement is above that cutoff point, the *regular achievers*. The second variable divides the students into four nearly equal groups, based on their percentile achievement scores. This variable permits the inclusion of first-graders in the analysis and allows for a sharper focus on achievement than the low achiever/regular achiever dichotomy.

The first part of the chapter focuses on the estimated population percentages of low achievers and regular achievers as well as students below the 25th, 50th, 75th, and 100th percentile who are and are not selected for some form of CE. The second part of the chapter presents demographic profiles of the students by educational achievement and CE selection status. While educational status is a principal variable, the chapter is meant to be not an analysis of achievement but a description of CE selectees by educational status. Subsequent reports will focus on achievement as the dependent variable.

Compensatory Education Selection Status and Educational Status

Figure III-1 presents the estimated population percentages (joint probabilities) of students' CE selection status and their basic achievement categories. First of all, it should be noted that approximately one student out of every four in grades 2-6 is counted as a low achiever according to this definition, and the rest are regular achievers. An approximately equal number of low achievers (7 out of 100) and regular achievers (8 out of 100) are selected for Title I programs. Fewer low achievers (4 out of 100) than regular achievers (7 out of 100) are selected for other forms of CE. Among regular achievers, CE selection rates are similar for Title I and non-Title I programs, but for low achievers Title I programs predominate.

Nearly 10% of all students are low achievers and attend schools where CE programs are offered, and yet are not selected for CE. Fifty percent of all students are regular achievers and attend schools where CE is offered, but are not selected to participate in these programs. A small number, less than 3 in 100, are low achievers who attend a school where CE is not available.

Nearly 1.2 million low achievers (31 percent of all low achievers) are selected for one form of CE or another. This indicates that more than half the low achievers do not receive CE services. Most of those not selected, more than 1.5 million (42 percent of the low achievers), attend a school where CE is offered. About 500,000 low achievers attend schools where CE is not currently available.

More regular achievers (1.3 million) than low achievers are selected for Title I programs. However, this makes up only 10 percent of the regular-achieving population. The number

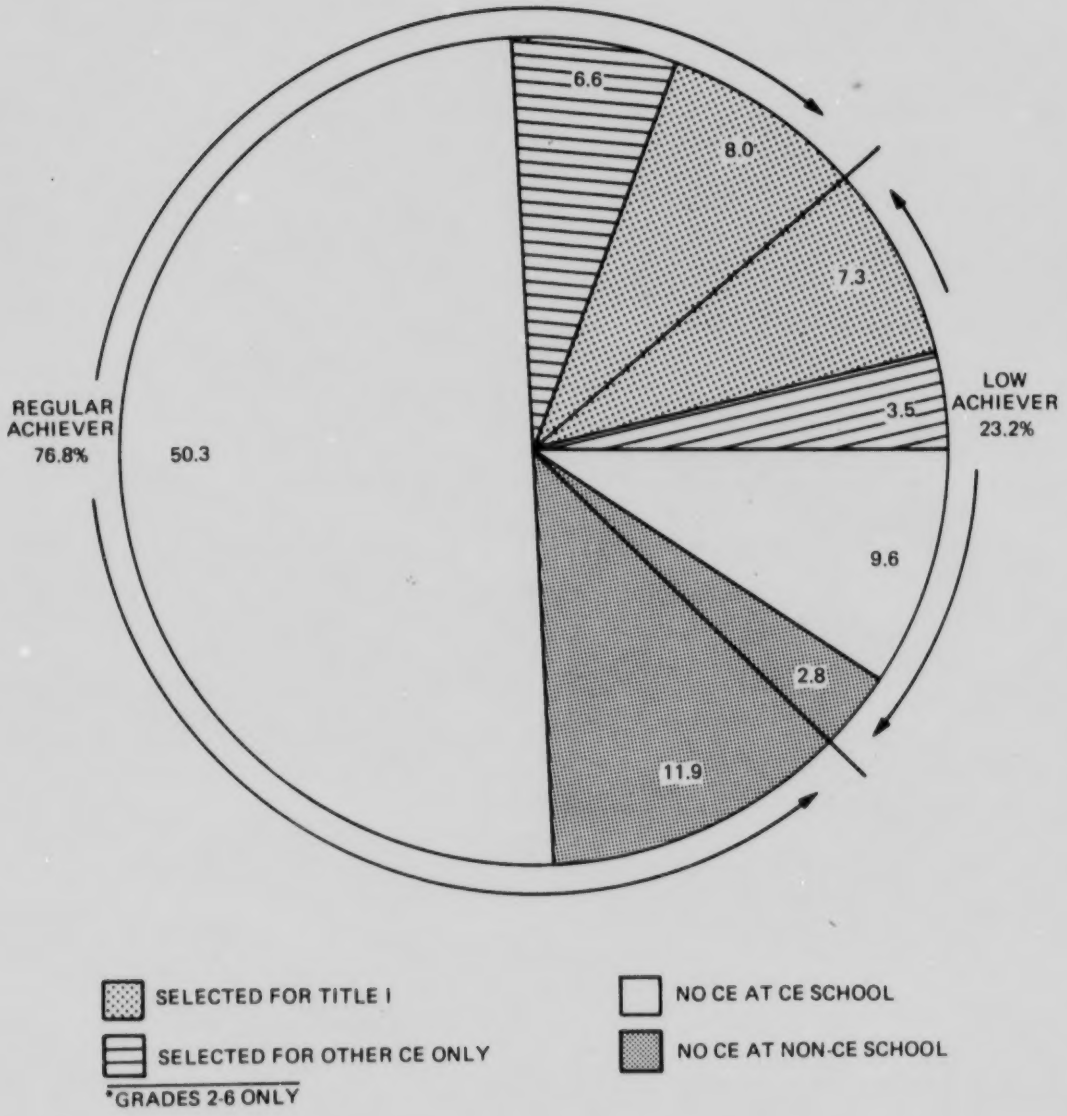

Figure III-1

Estimated Population Percentages Of Students' Compensatory Education Selection Status And Basic Achievement*

of regular achievers selected for other CE programs is nearly 1.1 million, a group considerably larger than that for low achievers. By far the largest number of students are regular achievers who attend schools with CE programs but are not selected for any services. These students number 8.2 million, and this comprises nearly two out of every three regular achievers. Another two million regular achievers attend schools where CE is not offered.

As indicated previously, the basic achievement variable is not applied to first-graders in this report; therefore, the projections in Table III-1 are for grades 2-6 only. Figure III-2, however, gives the estimated population percentages of students selected for CE by educational status in percentile scores divided into quarters. The Figure shows that among those students whose achievement scores place them below the 25th percentile (bottom quarter), the proportion selected for Title I services is similar to that among those classified as low achievers in Table III-1. The first or bottom quarter percentage of 32 closely parallels the 31 percent of all low achievers selected for these programs. However, because first-graders are included, the number of students indicated as selected for Title I increases to more than 1.5 million. The proportion of first-quarter students selected for other CE programs is almost 15 percent, or nearly 750,000 students. Still, nearly 2.1 million *first quarter* students who attend schools that offer CE services are not selected for any CE. Another 500,000, or 11 percent of students whose achievement places them below the 25th percentile, attend schools offering no CE.

Figure III-2 also permits additional insight into the Title I selection procedures. As the achievement quarter increases, the proportion of students selected for Title I decreases rapidly. Nearly one in every three students in the first quarter is selected, but the ratio drops

Table III-1

**Estimated Population Percentages And Numbers (In Thousands)
Of Students' Compensatory Education Selection Status
By Basic Achievement**

	CE Selection Status				
Basic Achievement*	Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
Low Achievers	31.3 (1,188)	15.2 (577)	41.5 (1,576)	12.0 (456)	100.0 (3,797)
Regular Achievers	10.4 (1,307)	8.5 (1,068)	65.6 (8,245)	15.5 (1,948)	100.0 (12,568)
Total Counts	2,495	1,645	9,821	2,404	16,365

*Grades 2-6 Only.

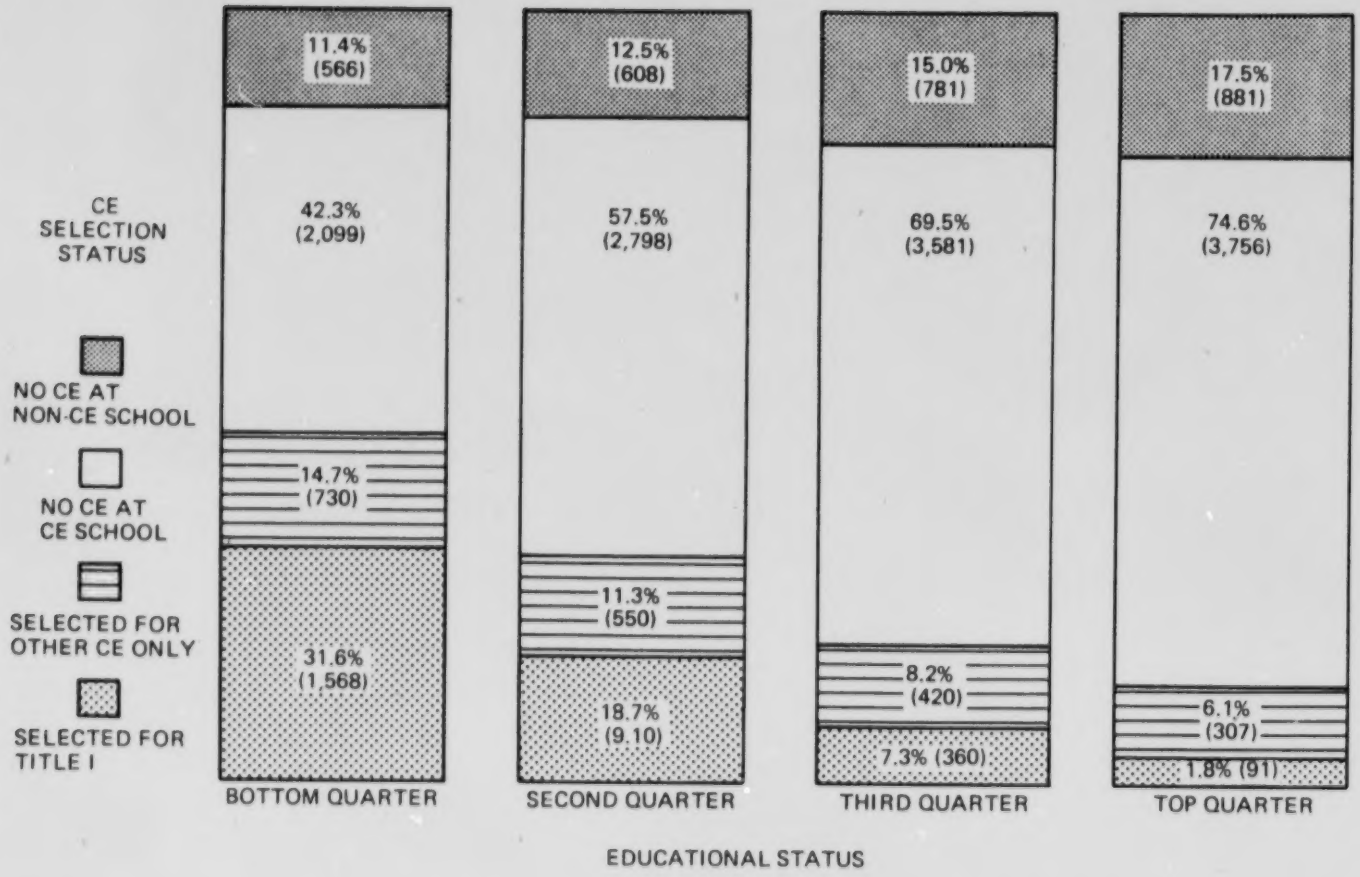

Figure III-2

Estimated Population Percentages (And Numbers In Thousands) Of Students' Compensatory Education Selection Status By Educational Status In Quarters

to about one in five in the second quarter, to less than one in ten in the third quarter, and to approximately one in fifty in the fourth quarter. A reasonable inference is that many of the children who are considered regular achievers (see Table III-1) and are selected for Title I are in the second quarter, and thus fall below the national median. That is, their achievement level places them outside the low-achiever category but still below the 50th percentile, which more closely approximates current Title I guidelines for selection. Also, the data in Figure III-2 indicate that the selection process for Title I programs is more sensitive to achievement level than is selection for other CE services. The proportion of students selected for these non-Title I funded services varies only from about 15 percent in the bottom achievement quarter to 6 percent in the top quarter.

Again, it is appropriate to focus on just those students attending Title I schools (Table III-2). Approximately 43 percent of the low achievers are selected for Title I, while only 16 percent of the regular achievers are selected. Thirteen percent of the low achievers are selected for other CE, compared to the 10 percent selected from among regular achievers. Again, an evaluation of the quarter groupings demonstrates that selection is primarily focused on the bottom two quarters, where nearly 43 percent of all students in the first quarter and 27 percent in the second quarter are selected for Title I. Only one in ten students in the third quarter and less than three in one hundred in the top quarter are Title I selectees.

Table III-2

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Educational Status In Title I Schools*

Educational Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE (%)	TOTALS (%) (Thousands)
BASIC ACHIEVEMENT**				
Low Achiever	43.2	13.4	43.4	100.0
Regular Achiever	15.9	9.6	74.4	99.9
QUARTERS				
Bottom Quarter	42.5	13.3	44.2	100.0
Second Quarter	26.5	11.1	62.3	99.9
Third Quarter	10.8	9.3	80.0	100.1
Top Quarter	3.0	8.1	88.9	100.0

*The universe sampled was not based on all Title I schools; hence, no total student counts have been estimated.

**Grades 2-6 Only.

Overall, it appears that the selection of students for CE, particularly Title I, is sensitive to student achievement. A large number of the children classified as regular achievers under the Congressional definition who are selected for Title I programs border on low achievement, that is, their scores fall just above the low-achiever cutoff point, but below the national median. However, 2.1 million low achievers, or members of the bottom quarter who are attending a school where CE services are offered, are not selected for Title I or any other form of CE. Thus, while the sensitivity to achievement is more apparent in Title I selection than in selection for other CE programs, the selection process must improve if the goal is to reach as many low-achieving students as possible.

Demographic Profiles

Racial/Ethnic Groups. Table III-3 provides the racial/ethnic analysis of the population percentages of students selected for CE by their basic achievement status. The proportion of low-achieving non-white students who are selected for Title I programs is greater than that for low-achieving whites. Only one in four white low achievers is selected for Title I programs, while the number is more than one in three for blacks, four in ten for those of Hispanic heritage, and one in three for members of other racial/ethnic groups.

The situation is partly reversed when it comes to low achievement and other CE status. Here, the proportion of whites chosen exceeds that of blacks by nearly two to one. Students of Hispanic background, however, are selected at a high rate for other CE (18%). Again, this can probably be attributed to the incorrect consideration of bilingual programs as compensatory services.

Among regular-achieving students, blacks and Hispanics have sizeable percentages (20 percent and 18 percent, respectively) selected for Title I programs. The selection rates are more than double those for whites or other groups, where less than one regular-achieving student in every ten is selected. However, since the white regular-achieving population numbers 10.6 million, the number of white regular achievers served by Title I is greater than that for all regular-achieving minority groups combined.

Grade. The data in Table III-4 correspond closely with those in the NIE reports (NIE,1977) showing that Title I selection is concentrated in the middle elementary grades. The educational variable in Table III-4 divides the students for all grades at the national median. For the bottom half, Title I selection in grades 2-4 ranges between 29 percent and 31 percent. The corresponding figure is 26 percent for grade 5, and less than 20 percent for grades 1 and 6. Selection for other CE is fairly consistent across grades.

Students in the top half of the achievement level are selected for Title I in first grade more often than in any other grade. Also, 28 percent of all first-graders selected for Title I are in the top achievement category. The percentage of all other Title I selectees in the upper half of their class is only 13 percent. This suggests that the selection process for first-graders is inaccurate in terms of this educational criterion.

Sex of Student. Among low achievers, there is a slight difference in the CE selection rates for girls and boys (Table III-5). Thirty-three percent of the females are selected for Title I

Table III-3

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Basic Achievement And Racial/Ethnic Group

Basic Achievement*	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
LOW ACHIEVER					
Racial/Ethnic Group					
White	27.0	17.1	43.2	12.7	100.0 (2,195)
Black	35.4	10.8	40.8	13.0	100.0 (1,082)
Spanish	41.4	18.3	37.1	3.2	100.0 (437)
Other	35.9	7.7	28.0	28.4	100.0 (83)
REGULAR ACHIEVER					
Racial/Ethnic Group					
White	9.0	8.4	66.9	15.7	100.0 (10,595)
Black	19.6	7.0	61.3	12.1	100.0 (1,156)
Spanish	18.3	15.6	62.1	4.1	100.1 (553)
Other	8.3	5.0	42.1	44.6	100.0 (264)
Total Counts (Thousands)	2,495	1,645	9,821	2,404	16,365

*Grades 2-6 Only.

Table III-4

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Educational Status And Grades

Education Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
BOTTOM HALF					
Grade					
First	17.9	12.2	59.4	10.4	99.9 (1,783)
Second	30.5	14.7	44.0	10.8	100.0 (1,594)
Third	29.2	12.7	45.5	12.6	100.0 (1,561)
Fourth	30.6	11.9	46.0	11.5	100.0 (1,541)
Fifth	26.4	13.2	48.8	11.6	100.0 (1,539)
Sixth	18.7	13.5	53.5	14.6	100.0 (1,772)
TOP HALF					
Grade					
First	7.0	7.9	72.4	12.8	100.0 (1,862)
Second	5.0	10.0	71.3	13.6	99.9 (1,658)
Third	4.4	8.3	68.3	19.0	100.0 (1,726)
Fourth	5.1	6.7	72.1	16.1	100.0 (1,566)
Fifth	3.8	5.7	72.2	18.4	100.1 (1,542)
Sixth	2.0	4.5	75.3	18.1	99.9 (1,862)
Total Count (Thousands)	2,941	2,000	12,264	2,801	20,006

Table III-5

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Basic Achievement And Sex Of Student

Basic Achievement	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
LOW ACHIEVER					
Sex of Student					
Female	32.6	13.7	42.8	10.9	100.0 (1,614)
Male	31.0	16.8	39.7	12.5	100.0 (2,183)
REGULAR ACHIEVER					
Sex of Student					
Female	8.9	8.0	67.5	15.6	100.0 (6,385)
Male	11.9	9.0	63.6	15.4	99.9 (6,183)
Total Counts (Thousands)	2,495	1,645	9,821	2,404	16,365

CE programs, while only 31 percent of the males are selected. However, the trend reverses itself when other CE status is examined. Only 14 percent of the low-achieving girls are selected for other CE, compared to nearly 17 percent of the low-achieving boys. Among the regular-achieving students, fewer girls than boys are selected for Title I and for other CE.

Urbanism. Table III-6 provides the estimated population percentages for achievement and CE selection by urbanism, and some of the same patterns appear as were discussed in Chapter II regarding urbanism. The CE selection pattern for low achievers is that the Title I selection proportions are highest in the large cities (39%), rural areas (34%), and small cities (31%). In contrast, the higher selection proportions for other CE programs occur in the suburban (30%) and medium-sized city (18%) locations. This probably reflects the fact that there is local money available in the suburban school districts for other CE programs that is not available in rural areas or large cities, where proportionately fewer low-achieving students are not selected for Title I services.

Table III-6

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Basic Achievement And Urbanism

Basic Achievement*	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
LOW ACHIEVER					
Urbanism					
City Over 200,000	39.2	14.3	39.1	7.4	100.0 (934)
City From 50,000–200,000	13.4	17.5	45.0	24.2	100.1 (421)
City Under 50,000	30.7	10.5	42.5	16.4	100.1 (1,109)
Suburb	24.7	29.6	39.9	5.8	100.0 (338)
Rural	34.0	15.1	42.3	8.6	100.0 (995)
REGULAR ACHIEVER					
Urbanism					
City Over 200,000	16.8	6.6	66.7	9.9	100.0 (1,520)
City From 50,000–200,000	4.8	7.6	51.2	36.4	100.0 (1,634)
City Under 50,000	10.8	6.1	69.0	14.2	100.1 (3,884)
Suburb	3.9	9.9	70.2	16.1	100.1 (1,873)
Rural	13.2	11.6	65.8	9.5	100.1 (3,657)
Total Counts (Thousands)	2,495	1,645	9,821	2,404	16,365

*Grades 2-6 Only.

The largest percentage of low-achieving students who attend school where CE is not offered come from the medium-sized cities. Since the Title I allocation formula focuses on large concentrations of poor children, it is possible that these cities do not have the concentrations of low-income children necessary to receive significant Title I funds.

The CE selection pattern for regular achievers corresponds to that described for low achievers. Basically, Title I selection rates are highest in the large cities, rural areas, and small cities, and these rates exceed the selection rates for other CE. However, the difference in the rural areas between selection rates for Title I and for other CE is not nearly so great for regular achievers. In the suburbs and medium-sized cities, other CE selection rates exceed those for Title I.

Geographic Region. The analysis by geographic region presented in Table III-7 follows some patterns similar to those identified in Chapter II, where poverty was the independent variable. Title I selection rates for low-achieving students are about the same in four of the five regions. However, the Mid-Atlantic replaces the South as the region where selection varies from the rest. In the Northeast, South, Midwest, and West, one in every three low achievers is selected for Title I. In the Mid-Atlantic region, the number is less than one in five.

There is less similarity among regions when other CE selection rates are analyzed. The largest percentage of students selected for other CE is concentrated among low achievers in the Northeast (28%); more than half of the low-achieving students in this region are selected for some form of CE. In the Mid-Atlantic states, low-achieving students are selected for other CE at a greater rate (20%) than they are selected for Title I (17%). In the South, the selection rate for other CE (5%) drops off drastically compared to the Title I rate (33%). The low-achieving student in the Midwest is also not likely to be selected for other CE, but is likely to attend a school where such services are offered. Finally, 20 percent of the low-achieving students in the West are selected for other CE programs, and so more than one out of every two low achievers are selected for some compensatory service in these states.

Among regular-achieving students in these geographic regions, the greatest proportion selected for Title I occurs in the South (13%). Again, in the South the percentage of students selected for other compensatory programs is minimal. The implication here is that the major compensatory service available in the South is Title I-supported, and that state-CE or locally-funded CE programs occur infrequently. The regions where the greatest proportions of regular-achieving students are selected for other CE are the Northeast (28 percent) and the West (14 percent).

Summary

The fundamental research question addressed here is: how does the student's educational status differentiate between those students selected and not selected for Title I and other CE services? The selection rate is highest for low achievers (47%) compared to regular achievers (19%). Nevertheless, because regular achievers outnumber low achievers by more than three to one, more regular-achieving than low-achieving students are selected for Title I and other CE services.

Table III-7

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Basic Achievement And Geographic Region

Basic Achievement*	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
LOW ACHIEVER					
Geographic Region					
Northeast	33.3	28.1	36.5	2.2	100.1 (592)
Mid-Atlantic	17.1	20.4	46.5	16.0	100.0 (486)
South	33.2	5.4	44.8	16.7	100.1 (1,268)
Midwest	34.3	13.3	44.6	7.8	100.0 (722)
West	32.7	20.2	33.7	13.4	100.0 (729)
REGULAR ACHIEVER					
Geographic Region					
Northeast	8.7	18.2	60.2	13.0	100.0 (2,589)
Mid-Atlantic	8.1	7.1	77.9	6.9	100.0 (1,533)
South	13.2	3.2	64.8	18.9	100.1 (3,041)
Midwest	10.4	4.4	73.6	11.6	100.0 (3,041)
West	10.2	13.6	47.4	28.8	100.0 (1,747)
Total Counts (Thousands)	2,495	1,645	9,821	2,404	16,365

*Grades 2-6 Only.

The selection rates differ little when achievement is measured in percentiles and the bottom quarter is substituted for low achievement. However, the percentile measure of educational status suggests that many regular achievers selected for CE score below the national median. When the national median is used as the definition of low achievement, more low achievers are selected for CE than regular achievers.

The largest proportion of low achievers under either definition of educational status is not selected for any CE services.

Familiar demographic patterns emerge when achievement and CE selection are analyzed. Minority groups, both low achievers and regular achievers, have a higher proportion of students selected for Title I than whites. However, this is not true of selection for other CE programs. Title I selection is greatest in the middle grades (2-4).

The basic difference by sex of student occurs among regular-achieving students, where more males than females are selected for compensatory programs.

CHAPTER IV. FAMILY ECONOMIC STATUS AND STUDENT EDUCATIONAL ACHIEVEMENT

A strong relationship has frequently been reported among family background, socioeconomic variables, and student educational achievement. A principal conclusion of the Coleman Report (1966, pp. 3-30) was that these variables have a powerful effect upon student achievement that does not diminish over time. P. C. Sexton's study entitled *Education and Income* (1961) has shown that children from families with incomes over $7,000 score, on the average, considerably higher on achievement tests than those from families whose income is below $7,000. Christopher Jencks' *Inequality*, a study as controversial in its own right as the Coleman study, argued that these factors are so salient that schools cannot overcome one's family background. Jencks and others (1972, p. 141) concluded that economic origins influence the amount of schooling a child receives, that the differences between poor and non-poor children are partly a matter of academic aptitude and partly a matter of money, and finally that cultural factors and values have even more to do with attainment than either aptitude or money. The overall conclusion is that children from low-income families do worse on achievement tests than children from high-income families.

The two previous chapters dealt with the relationship of family economic status and student educational achievement to selection for CE services. This chapter focuses on the basic proposition of compensatory education, which assumes that family economic status is positively related to student achievement.

Poverty and Achievement: The Basic Relationship

A subsequent SES report will deal with a wide range of family background and socioeconomic factors; hence, this report confines itself to the basic relationship between family income and student scores on the CTBS. The data generated in the Participation Study confirm the positive relationship between family economic status and the child's achievement. In the tables that follow, the focus of the analysis shifts from national projections of numbers of students to an investigation of the nature and strength of the relationship between economic and educational status. Consequently, the *sample* frequencies and percentages are included in the tables along with various test statistics. Also, in this analysis poverty refers to the family's income status as measured by the 1976 Orshansky index, and does not include other students counted under the Title I allocation formula.

The basic relationship between family economic status, operationally defined in terms of the 1976 Orshansky poverty index, and student achievement, defined as one year or more below grade level, is presented in Table IV-1. The X^2 value, 560.06, is statistically significant ($\rho<.001$); based on the percentages in Table IV-1, this indicates that there is a systematic relationship between economic and educational status. Students from non-poor families tend to be regular achievers by a ratio of four to one. Economically disadvantaged children are more likely to be low achievers; in fact, 43 percent of the students from poor families are low achievers. Four out of every ten children in grades 2 through 6 whose families are classified as poor are achieving one year or more below grade level. In contrast, only two of every

Table IV-1

Students' Basic Educational Achievement
By Family Economic Status

(N = 12,444)*

Economic Status	Basic Achievement*		
	Low Achiever (%)	Regular Achiever (%)	Row Totals (%)
Poor	42.7 (909)	57.3 (1,219)	100.0 (2,128)
Non-Poor	19.0 (1,955)	81.0 (8,361)	100.0 (10,316)
Column Totals	23.0 (2,864)	77.0 (9,580)	100.0 (12,444)
$X^2 = 560.06$, df = 1, $p < 0.001$			

*Grades 2-6 Only.

ten elementary children whose family economic situation is considered to be non-poor are low achievers. These data mean that if a child comes from a poor economic environment, there is about one chance in two that the student will be a low achiever. For a child from a non-poor family, the chances are only one out of five. Hence the conclusion is that students from poor families are more likely to be low achievers than are students from non-poor families.

The *phi* coefficient computed for Table IV-1 is .212, which means that the relationship between family economic status and basic achievement is only moderate.

To include first-graders in the analysis, the educational status variable is presented in quarters in Table IV-2. Here again the X^2 value of 1,052.90 is statistically significant ($p < .001$) and and Cramer's V, a measure of the strength of the relationship assuming nominal data, is .263. The tendency for low economic status to be associated with low educational achievement appears even more pronounced when educational achievement is subdivided into quarters. Forty-six percent of the children from poor homes are in the bottom quarter of the distribution, and another 29 percent are in the second quarter. Consequently, nearly 75 percent of all the children characterized as poor are scoring at or below the 50th percentile. It has already been asserted that if a child comes from a low-income family, there is a 43 percent

Table IV-2

Students' Educational Achievement In Quarters
By Family Economic Status

(N = 15,115)*

Economic Status	Educational Status: Bottom Quarter (%)	Second Quarter (%)	Third Quarter (%)	Top Quarter (%)	Row Totals (%)
Poor	46.1 (1,173)	28.7 (732)	17.5 (446)	7.6 (194)	100.0 (2,545)
Non-Poor	20.3 (2,553)	23.5 (2,952)	27.4 (3,441)	28.8 (3,624)	100.0 (12,570)
Column Totals	24.7 (3,726)	24.4 (3,684)	25.7 (3,887)	25.3 (3,818)	100.0 (15,115)

$X^2 = 1052.90$, df = 3, $\rho < 0.001$

*Grades 1-6.

chance that the child's achievement is one year or more below grade level. But these data (Table IV-2) suggest that there is a 46 percent chance that a child from a low-income family will score at or below the 25th percentile on the CTBS, and a 75 percent chance that such a child will be below the national mean. Only 25 percent of the poor score above the 50th percentile on the CTBS, whereas 56 percent of the non-poor score above it. Therefore, not only do the poor have a tendency to score in the bottom quarter, but a significant proportion of them (75%) are clustered below the 50th percentile.

On the basis of these data, it is unlikely that children coming from poor family backgrounds will score above the 50th percentile on the CTBS. On the other hand, among children whose family incomes exceed the poverty thresholds for 1976, only 20 percent are in the bottom quarter; 56 percent are above the 50th percentile, and 29 percent are in the top quarter. In effect, students from poor backgrounds cluster in the bottom two quarters, while students from non-poor backgrounds cluster in the upper two quarters.

Figure IV-1 displays graphically the percentage of contribution from poor and non-poor to each decile of the scale of educational achievement. The non-poor are the larger of the two income subgroups (83%) and naturally constitute the largest percent of each decile. What is interesting, however, are the relative and comparative proportions of non-poor to poor in

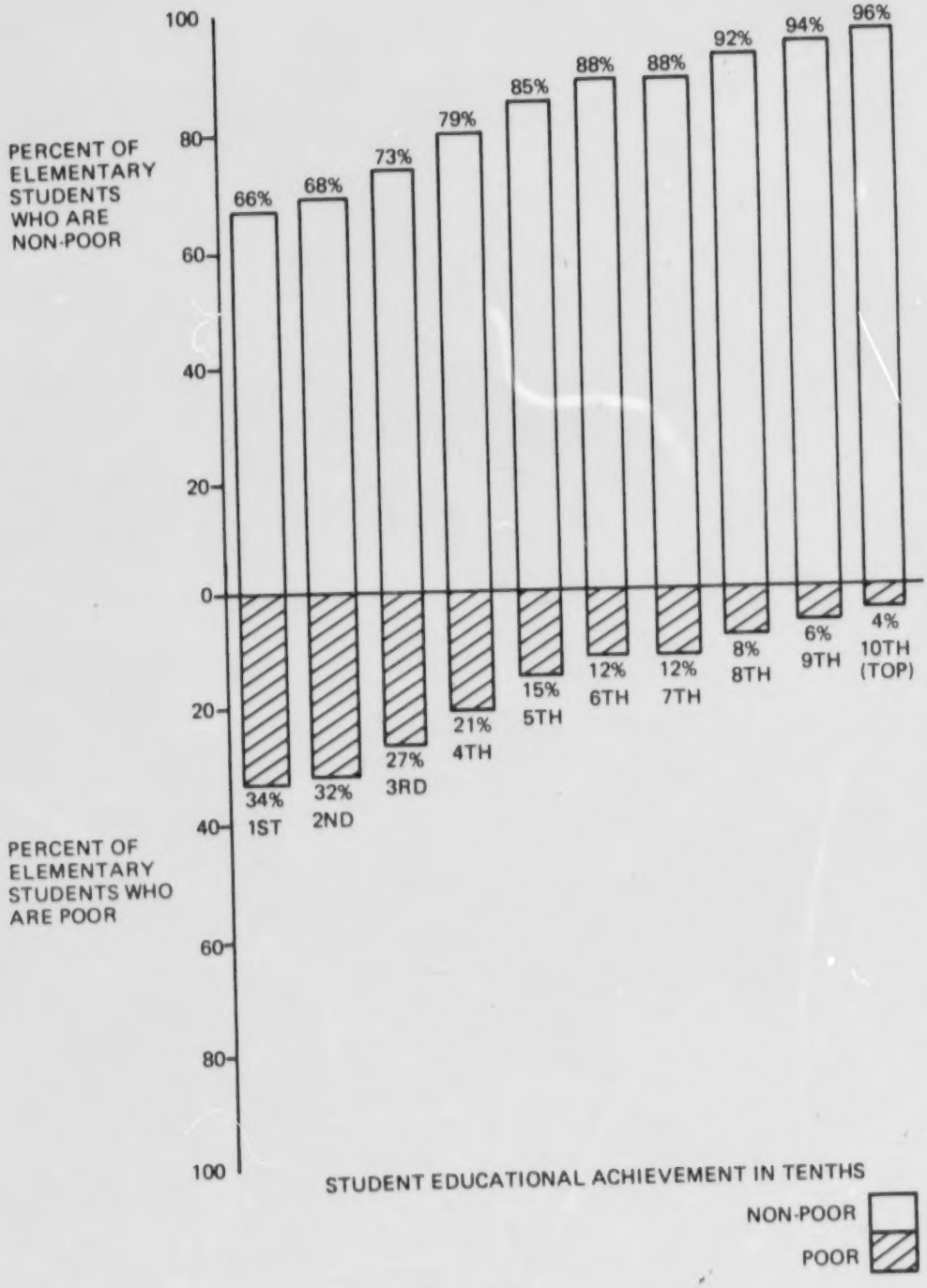

Figure IV-1

The Proportions of Students from Poor and Non-Poor Families in Each Tenth of the Educational Achievement Distribution

each decile. The ratio of non-poor to poor in the first decile is 19:10, and in the second is 21:10. In the third decile, the ratio increases to 27:10. But the ratio of non-poor to poor becomes progressively larger in each of the upper deciles such that in the ninth decile it is 156:10 and in the tenth it is 240:10. The *gamma*, a measure of the relationship between variables based on the number of concordant pairs minus the number of discordant pairs divided by the total number of pairs, is .455.

The Nature of the Income-Achievement Relationship

The conclusion to be drawn from Tables IV-1 and IV-2 and Figure IV-1 about the basic relationship between family economic status and a child's educational achievement (measured in terms of a standardized test) is that there is a statistically significant association between poverty and a tendency to score poorly on the CTBS. If a child comes from a low-income family, there is a 75 percent chance that the child's score will fall in the bottom half of the educational achievement distribution.

To explore further the nature of the relationship between income and student achievement, analysis focuses on the continuous distributions of each variable; correlation analysis and mean difference techniques are employed. These statistical procedures are appropriate when applied to family income; when applied to educational achievement, which is transformed into a percentile score, strict statistical assumptions are not met. However, there is a need for a measure of achievement that is standardized for all students in the sample. Such a measure allows for cross-grade-level analysis, and is efficiently provided by the percentile score. While the use of these test statistics may not be entirely appropriate, both procedures are sufficiently robust to justify their use.

The simple linear correlation between total family income and student achievement for the entire sample is $r = .289$. This correlation coefficient is computed on individual-level family income data and the child's percentile score for educational achievement. The correlation of .289 is positive (and given the sample size, statistically significant beyond the .001 level), but the coefficient of determination, r^2, indicates that the linear trend accounts for only 8.3 percent of the variance in educational achievement. An r value of .289 is consistent with correlation coefficients reported in other education studies testing the relationship between family income and student achievement on national tests using individual-level data (Wolf, 1978). However, the simple correlation is clearly not high, and consequently the amount of explained variance in educational achievement by family income on the basis of the least-squares regression line is low. The correlation between income and achievement increases considerably when the unit of analysis is the school and not the individual student.* However, the pertinent statistic for these student-level data, r^2, indicates that only 8 percent of the variation in educational achievement is accounted for by family income.

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*The correlation between the school mean income and the school mean percentile score based on the Participation Study sample is $r = .666$ and $r^2 = .444$, which is a substantial increase (>500%) in the proportion of explained variance. This stronger linear relationship at the school level is extremely important because of its policy implications for the allocation formula.

The overall correlation coefficients are similar to the coefficients reported for each of the six grade levels in Table IV-3. The correlations in this table are computed using the publisher's raw scores for the CTBS, and not the percentile scores as in the case of the overall correlation coefficient. It appears that the r value of .289 is a satisfactory indicator of the relationship between family income and student achievement. The proportions of explained variance range from 4 percent to 10 percent, being lowest in the first and sixth grades and highest in the third and fourth grades. These data confirm that family income does not explain very much of the variation in educational achievement, and that this observation is consistent across all six grade levels.

Table IV-3

Correlation Coefficients And Proportion Of Explained Variance Between Total Family Income And Student Educational Achievement For Each Grade Level

Grade	Correlation Coefficient	Proportion of Explained Variance	N
First	0.20	0.040	2,443
Second	0.31	0.096	2,210
Third	0.32	0.102	2,192
Fourth	0.32	0.102	2,097
Fifth	0.31	0.096	2,135
Sixth	0.28	0.078	2,628

These findings suggest that the relationship between family income and student educational achievement may have curvilinear components. The F-ratio for the sum of squares due to linear regression is F=1761.813 (df=1), which is significant beyond the .0001 level, and the F-ratio due to the deviation from linearity is F=3.496 (df=11), which is also significant (see Table IV-4). It may be concluded from these F-ratios that the relationships in the data are only partially explained by the linear trend and hence curvilinear regression analysis is appropriate.

Curvilinear regression analysis involves raising the independent variable, total family income, to higher powers in a polynomial regression equation. The objective is to test whether higher-order polynomial equations increase the proportion of explained variance in the dependent variable. The results of the curvilinear regression analysis are summarized in Table IV-5.

Table IV-4

Test Of Linearity In The Bivariate Relationship
Between Family Income And
Student Educational Achievement

Source of Variation	df*	Sum of Squares	Mean Squares	F	Level of Significance
Due to Regression	1	1293455.00	1293455.00	1761.813	<0.0001
Deviation from Linearity	11	28235.12	2566.82	3.496	<0.0001
Total	12	1321690.12			

*The degrees of freedom are derived from the 13 income categories (see Table IV-6), where the sum of squares due to linear regression has 1 df and the deviation sum of squares has K-2 or 11 df (K = number of treatments, i.e., 13 income categories). Total df = K-1 or 12.

Table IV-5

Curvilinear Regression Analysis Of Family
Income With Educational Achievement

Variable	t-ratio	Cumulative Proportion of Explained Variance	Zero-Order Correlation
Linear	33.3645	0.0836	0.2891
Quadratic	21.7271	0.1034	0.1563
Cubic	2.5187	0.1089	0.0656
Quartic	4.0236	0.1091	0.0346
Quintic	3.6112	0.1083	0.0243

In terms of an increase in explained variance criterion, the quadratic component increases the amount of explained variance by almost 2 percent to slightly over 10 percent. The cubic term increases the explained variance by slightly more than .5 percent, bringing the total to 11 percent. It would appear that these higher-order polynomial equations contribute substantially to explaining the variation in educational achievement. It may be concluded therefore that the nature of the relationship between family income and educational achievement is more than simply linear; a third-degree polynomial, a cubic equation, increases the amount of explained variance to nearly 11 percent, which is significantly better than the linear model.

Educational Achievement for the Poor and Non-Poor

The median percentile score for the poor is half that for the non-poor in the Participation Study sample. The median achievement percentile score for the economically disadvantaged students is a low 28, compared to a median percentile score of 57 for the students from non-poor family backgrounds. In Table IV-6, the median percentile scores are reported for different income levels. The data demonstrate the progressive increase in the median percentile score across the income levels. The range in medians goes from a low score of 28 for families whose income level is under $2,500 to a high of 70 for children whose total family income level exceeds $29,000. The lower-income categories (≤$9,000) have median percentile scores below the 38th percentile, while the upper income categories (≥$19,000) have median scores above the 60th percentile. Over the entire range of income categories, it appears that the median percentile score increases approximately 1½ points per thousand dollars.

For the remaining analysis both the medians and means of the percentile scores of the poor and non-poor for selected subgroups are given, but only the Z-ratios of the mean differences for a test of significance are actually reported. Selected non-parametric tests of the medians are consistent with the results of the mean analysis. A comparison of the medians and means for the respective income categories shows that below $13,000 the median percentile score tends to be less than the mean; for example, the mean for $2,501-$5,000 was 34, while the median was 28. Above $13,000 the median score is greater than the mean for a given income category. The general conclusion of the differences between the measures of central tendency for the poor and the non-poor is that the condition of poverty (e.g., when total family income ≤$9,000) tends to be associated with low achievement scores, but for incomes above $13,000 the median scores are all above the 50th percentile.

Racial/Ethnic Groups and Geographic Regions. Whites who are poor have a median percentile score on the CTBS of 38, which is the highest test score for any poor ethnic subgroup. It is, nevertheless, well below the non-poor median for whites (60). Students whose ethnic backgrounds are Asian, Pacific Islands, or American Indian (i.e., "Other") are a fairly small subgroup of the sample (2%), yet the impact of poverty is similar to that for the whites. Poor Asians, Pacific Islanders, or American Indians have a low educational achievement mean of 27, compared to the non-poor median of 59. For both the white and "Other" ethnic subgroups, poverty has a tendency to depress the median percentile score.

The poverty condition affects black and Hispanic children in the same way it does whites, Asians, Pacific Islanders, and American Indians; however, the differences between the poor

Table IV-6

Students' Educational Achievement For Alternative Levels Of Family Income

Family Income	Median	Mean	Standard Deviation	Standard Error of the Mean	95% Confidence Interval for the Mean	Sample N
Under $2,500	27.75	31.80	25.51	1.22	29.41 – 34.20	437
$2,501-$5,000	28.34	34.44	24.90	0.75	32.96 – 35.92	1087
$5,001-$7,000	32.55	37.01	25.25	0.79	35.45 – 38.57	1005
$7,001-$9,000	37.52	40.62	26.81	0.80	39.04 – 42.19	1109
$9,001-$11,000	45.22	45.37	27.95	0.81	43.77 – 46.96	1188
$11,001-$13,000	47.52	47.73	27.84	0.79	46.18 – 49.29	1234
$13,001-$15,000	52.49	52.23	27.84	0.78	50.69 – 53.77	1259
$15,001-$17,000	55.22	53.30	28.70	0.81	51.71 – 54.89	1248
$17,001-$19,000	59.56	56.69	27.96	0.82	55.07 – 58.31	1146
$19,001-$21,000	60.77	58.17	27.55	0.87	56.46 – 59.88	997
$21,001-$23,700	64.45	60.65	26.98	0.89	58.88 – 62.41	902
$23,701-$29,000	64.85	61.17	26.59	0.77	59.65 – 62.69	1180
Over $29,001	70.11	65.06	26.33	0.83	63.43 – 66.69	1005

and non-poor medians, while significant, are not as great, because the non-poor medians for both ethnic subgroups are well below the sample median. Both the poor black and Hispanic students have a median achievement percentile score of only 21. The non-poor blacks (N = 1,100) do significantly better than the poor blacks, but they are still substantially below the white and "Other" ethnic groups. Hispanic poor and non-poor students have the lowest median scores: 22 and 30, respectively.

The most pronounced difference between the poor and non-poor medians for the ethnic subgroups is 22 for the whites and 32 for the "Other" category. The dramatic differences between these median scores suggest the magnitude of poverty's influence on elementary students' educational achievement. The median scores for the students from poor families are well below those from non-poor families for each racial or ethnic group (see Table IV-7).

Table IV-7

Comparisons Of Educational Achievement For Poor And Non-Poor Students By Racial/Ethnic Group

Racial/Ethnic Group and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-ratio	N
White					
Poor	38.25	41.26	0.77	-19.86	1,192
Non-poor	60.20	57.44	0.26		10,598
Black					
Poor	21.03	26.86	0.68	-8.66	949
Non-poor	30.14	35.81	0.77		1,100
Hispanic					
Poor	21.90	26.53	1.10	-4.92	343
Non-poor	29.74	33.95	1.02		590
Other					
Poor	26.91	32.89	3.07	-6.37	70
Non-poor	58.96	55.79	1.81		260

Table IV-8

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Geographic Region

Geographic Region and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-Ratio	N
New England					
Poor	38.33	42.45	2.14	-6.96	166
Non-Poor	63.04	58.61	0.88		979
Metro Northeast					
Poor	26.09	32.61	1.49	-14.74	308
Non-Poor	59.01	57.17	0.74		1435
Mid-Atlantic					
Poor	31.05	33.94	1.75	-10.90	195
Non-Poor	57.15	54.64	0.72		1618
Southeast					
Poor	24.70	29.36	0.81	-16.43	664
Non-Poor	45.66	46.66	0.67		1680
North Midwest					
Poor	30.68	38.54	1.43	-13.87	348
Non-Poor	61.20	59.79	0.53		2410
South Central					
Poor	27.67	33.26	1.37	-12.08	349
Non-Poor	52.70	52.19	0.75		1437
Central Midwest					
Poor	42.63	44.41	2.97	-5.36	76
Non-Poor	64.07	61.41	1.07		632
North Central					
Poor	37.80	41.04	3.38	-5.63	73
Non-Poor	64.99	61.23	1.18		491
Pacific Southwest					
Poor	24.66	28.93	1.26	-11.17	358
Non-Poor	42.64	45.27	0.73		1535
Pacific Northwest					
Poor	41.30	40.79	3.55	-4.01	49
Non-Poor	59.70	56.23	1.42		404

In eight of the ten federal planning regions, the non-poor students have median percentile scores above the 50th percentile, and in all ten regions there is a significant difference ($Z \geq 1.96$ for the means) between the poor and non-poor children. The highest median scores were recorded in the Central Midwest states (64) and the North Central states (65).* The median percentile scores for poor children in these regions were among the highest of all ten regions, though the sample size of the poor in these regions is small. Other high median percentile scores are reported for the non-poor in the North Midwest region (62) and in New England (63). The medians for the poor in these regions are 31 and 38, respectively. The only non-poor medians to fall below the 50th percentile mark are the Pacific Southwest (43) and the Southeast (46) regions. These two regions also have the lowest median percentile scores for students from poor families.

Urbanism. Table IV-9 presents the difference between the poor and the non-poor in the urban-rural categories. The lowest median achievement score for elementary students from poverty backgrounds is in the large cities (22). Non-poor students in large cities do not fare well either; their median percentile score is 40, which is considerably below the 50th percentile mark. The large urban centers and medium-sized cities are the only locations where the economically disadvantaged students have median scores below the 30th percentile and, in the case of the largest urban centers, where even the non-poor children have a median below the 50th percentile. Children from poverty backgrounds in the more rural environments or the small cities tend to have higher median achievement scores than poor children in large cities. Elementary school children from poverty backgrounds in suburban areas have the highest median percentile score (33) among the poor. Here again, however, the differences between the poor and non-poor are significant for every level of urbanism; the poor have consistently lower achievement scores than the non-poor.

Parents' Educational Attainment. The median scores increase steadily for both the poor and the non-poor as the parents' educational attainment level increases. However, the median percentile scores for the poor at every level of father's or mother's educational attainment are below the non-poor medians. Where the parents do not have college degrees and the family is classified as poor, the median percentile scores are below the 50th percentile. By comparison, children from non-poor families where the father or mother has a high school diploma have median percentile scores of 57. The basic conclusion is that children in poverty tend to underachieve by comparison to the non-poor, for each level of parents' educational attainment.

Sex of Student, Family Language, and Family Size. The condition of poverty appears to affect males, females, predominantly English-speaking, Spanish-speaking, and other foreign language backgrounds in the same way: that is, the medians are below the non-poor students. Female students, poor and non-poor alike, score higher than the males; the bilingual students, where the language is something other than Spanish, have the highest median achievement percentile scores for the poor and non-poor.

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*The Central Midwest includes Iowa, Kansas, Missouri, and Nebraska; the North Central region has Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming.

Table IV-9

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Urbanism

Urbanism and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-Ratio	N
City Over 200,000					
Poor	21.62	27.45	0.79	-15.02	802
Non-Poor	40.44	43.67	0.72		1409
City from 50,000-200,000					
Poor	28.97	33.38	1.52	-13.17	254
Non-Poor	57.43	55.48	0.69		1675
City Under 50,000					
Poor	31.26	36.97	0.99	-16.36	675
Non-Poor	56.74	54.85	0.45		3924
Suburb					
Poor	33.44	35.16	2.04	-11.84	144
Non-Poor	64.23	60.54	0.64		1879
Rural					
Poor	32.66	37.48	0.98	-15.91	668
Non-Poor	56.64	54.68	0.45		3577

Table IV-10

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Father's Educational Attainment

Father's Education and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-Ratio	N
Grade 8 or Less					
Poor	25.32	30.22	0.89	-7.47	610
Non-Poor	34.79	38.87	0.74		1253
Grades 9-11					
Poor	29.93	34.65	1.41	-6.21	286
Non-Poor	42.26	44.18	0.62		1766
Grade 12					
Poor	35.41	39.39	1.64	-9.18	279
Non-Poor	56.60	54.83	0.42		3994
Same College					
Poor	41.94	43.75	2.42	-5.68	101
Non-Poor	60.77	57.69	0.57		2230
College Graduate					
Poor	58.72	58.63	4.22	-2.89	56
Non-Poor	77.59	70.86	0.53		2212

Table IV-11

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Mother's Educational Attainment

Mother's Education and Family Econimic Status	Medium	Mean	Standard Error of the Mean	Z-Ratio	N
Grade 8 or Less					
Poor	23.11	28.33	0.78	-6.05	793
Non-Poor	31.37	35.16	0.82		917
Grade 9-11					
Poor	24.82	30.52	0.76	-13.87	892
Non-Poor	42.21	43.50	0.54		2269
Grade 12					
Poor	32.59	38.23	1.05	-15.22	635
Non-Poor	57.06	55.05	0.36		5518
Same College					
Poor	47.24	48.26	2.03	-6.38	185
Non-Poor	67.07	61.68	0.55		2382
College Graduate					
Poor	66.25	60.19	4.56	-2.15	50
Non-Poor	77.34	70.04	0.69		1409

Table IV-12

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Sex Of Student

Sex of Student and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-Ratio	N
Female					
Poor	30.83	36.11	0.71	-26.30	1253
Non-Poor	59.88	57.14	0.35		6098
Male					
Poor	25.08	31.32	0.67	-26.94	1263
Non-Poor	52.50	51.93	0.35		6409

Table IV-13

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Family Language

Family Language and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-Ratio	N
English					
Poor	28.65	34.60	0.55	-33.84	2086
Non-Poor	57.14	55.28	0.26		11374
Spanish					
Poor	22.47	26.37	1.08	-6.80	364
Non-Poor	30.96	36.69	1.06		653
Other					
Poor	33.55	40.17	2.73	-5.61	95
Non-Poor	61.01	57.01	1.20		545

Table IV-14

Comparisons Of Educational Achievement
For Poor And Non-Poor Students
By Family Size

Family Size and Family Economic Status	Median	Mean	Standard Error of the Mean	Z-Ratio	N
Two					
Poor	32.79	34.79	2.56	-4.80	94
Non-Poor	48.51	50.10	1.89		219
Three					
Poor	30.70	36.28	1.70	-9.27	230
Non-Poor	54.14	53.71	0.78		1294
Four					
Poor	33.55	39.13	1.28	-13.60	444
Non-Poor	60.82	57.64	0.44		4045
Five					
Poor	25.79	31.59	1.11	-19.86	497
Non-Poor	57.18	55.60	0.47		3430
Six					
Poor	27.66	33.11	1.17	-14.76	425
Non-Poor	55.19	52.84	0.63		1986
Seven					
Poor	29.27	33.74	1.20	-10.14	380
Non-Poor	47.18	49.79	1.02		806
Eight					
Poor	24.75	29.01	1.59	-8.26	200
Non-Poor	45.76	46.28	1.35		421
Nine					
Poor	26.95	31.93	2.09	-4.33	121
Non-Poor	44.72	44.68	2.05		175
Ten					
Poor	20.09	23.87	2.24	-3.88	76
Non-Poor	32.69	38.31	2.96		89
Eleven					
Poor	24.88	32.16	2.82	-0.51	71
Non-Poor	29.56	34.38	2.57		109

There are some very interesting variations in the median percentile scores for the poor and non-poor when the control factor is family size (number of related individuals in the household). It is interesting that the non-poor score is significantly higher than the poor for each level of family size except where there are eleven or more members of the family. In the category of families with eleven or more children, there is no significant difference between the poor and non-poor achievement means: 32 and 34, respectively. The Z-ratio is less than the necessary ±1.96, though the standard error is higher than for other categories of family size.

The highest median percentile for the poor is reported for families with two (33) and four (34) members. For families not in poverty, the highest medians are in the four-member (61) and five-member (57) categories (see Table IV-14). Among the non-poor, the median achievement percentile is at or above the 50th percentile, as long as the family has more than two but less than seven members. The median test score for the non-poor declines from a high of 61 for non-poor families with four members to a low of 30 for families of eleven or more. In contrast, the median scores for poverty families do not drop systematically as family size increases. Despite the lack of a consistent drop in median test scores, the medians for poor students from small families tend to be higher than those for poor students from larger families.

Conclusion

A central assumption of compensatory education is that family economic conditions significantly influence student educational achievement. The idea is simple and straightforward: children from impoverished family circumstances are likely to be low achievers. In light of this basic CE proposition, the Participation Study collected empirical data to describe "the relationship between students' economic status and their educational status." Data from the Participation Study support the basic contention that poverty tends to be associated with low educational achievement.

The relationship between income and achievement is not a simple linear one; the linear correlation is weak and the amount of explained variance in achievement due to income is small. The income-achievement relationship is more adequately described by a third-degree polynomial equation. But the fundamental point to be emphasized is that despite the low level of explained variance in achievement due to family income, the condition of poverty is associated with a high incidence of low achievement.

CHAPTER V. FAMILY ECONOMIC STATUS, EDUCATIONAL STATUS, AND COMPENSATORY EDUCATION SELECTION

Chapter II discussed the various ways that student economic status differentiated between those students who are and are not selected for Title I and other CE services. Chapter III then presented the ways that student achievement affects the CE selection status of all students. The joint relationship between a student's family economic status and achievement was discussed in Chapter IV. This chapter focuses on both economic and educational variables to describe the students selected for compensatory services.

The chapter is divided into three parts. The first presents estimates of the number of low-income or poor students, according to Title I allocation criteria, who are also low achievers. The number of low-income students who are regular achievers and the number of low achievers who are not from low-income families are also estimated. Finally, a count of the students who are classified as non-poor regular achievers is provided. The second section of the chapter deals with the CE selection status of these four groups of students: poor, low-achieving; poor, regular-achieving; non-poor, low-achieving; and non-poor, regular-achieving. Selection rates of students in all schools, and in Title I schools only, are examined. Data in the third section further describe the variables covered in the first two parts according to demographic categories.

Economic and Educational Status

Table V-1 presents estimated population percentages and numbers of students in grades 2-6 according to their Title I economic status and their basic achievement. The number of students in grades 2-6 whose families earn less than the Orshansky poverty threshold, or who receive AFDC payments, is about 3.4 million. Of those, 42 percent, or more than 1.4 million, are classified as low achievers. The remaining low-income students, 58 percent or nearly 2 million, are classified as regular achievers.

The non-poor number more than 12.9 million, and 18 percent of this group are counted as low achievers. The number, however, is approximately 2.3 million and this exceeds the count of economically disadvantaged low achievers. These data indicate that the chance that a student classified as low-income under the Title I criteria will be a low achiever is approximately twice that of a student whose family economic status is not so classified. Eighty-two percent of this latter group are counted as regular achievers, or nearly 10.6 million students in grades 2-6.

Table V-2 presents the same population estimates for family economic status across educational status measured in achievement quarters. This table displays in greater detail the education variable and its relationship to the economic variable. The number of students represented in this table is larger than the number in Table V-1, because the use of this educational status variable permits the inclusion of first graders. Hence, in grades 1-6, the number of students from poor families totals nearly 4.2 million; those from non-poor families number more than 15.8 million.

Table V-1

Estimated Population Percentages And Numbers (In Thousands)
Of Students' Basic Achievement By Family Economic Status

Economic Status	Basic Achievement*		
	Low Achiever (%)	Regular Achiever (%)	TOTALS (%)
Poor/AFDC	41.9 (1,440)	58.1 (1,997)	100.0 (3,437)
Non-Poor	18.1 (2,340)	81.9 (10,588)	100.0 (12,928)
Total Counts**	3,780	12,585	16,365

*Grades 2-6 Only.

**The slight differences from the frequencies listed previously for low achievers (3,797) and regular achievers (12,568) are due to rounding errors.

Table V-2

Estimated Population Percentages And Numbers (In Thousands)
Of Students' Educational Status By Family Economic Status

Economic Status	Educational Status				
	Bottom Quarter (%)	Second Quarter (%)	Third Quarter (%)	Top Quarter (%)	TOTALS (%)
Poor/AFDC	45.0 (1,881)	28.6 (1,196)	18.1 (757)	8.3 (347)	100.0 (4,181)
Non-Poor	19.5 (3,086)	23.2 (3,671)	27.7 (4,383)	29.6 (4,684)	100.0 (15,825)
Total Counts	4,967	4,867	5,141	5,031	20,006

Among the poor children, 45 percent, or nearly half, fall into the bottom or first quarter of achievement. These students number nearly 1.9 million. Another 29 percent of those counted under the Title I allocation criteria, or 1.2 million students, achieve at a level that places them in the second quarter. Thus, nearly three out of every four economically disadvantaged students achieve at a level that falls below the national median. Only 1.1 million, or slightly more than 25 percent of those from poor families achieve above the median.

The figures are different when attention is focused on the students classified as non-poor. Less than one in five, or approximately 3.1 million of these students achieve in the first (lowest) quarter. The figure for the second quarter increases to approximately 23 percent, or one in four with the number of students at this level equaling 3.7 million. Nearly three out of every five of these students, or approximately 9 million children in grades 1-6, achieve above the national median.

A student counted under the Title I allocation criteria, therefore, is far more likely to be a low achiever than one who is not counted. However, because there are more than four times as many non-poor students as poor, the number of non-poor students whose achievement falls either one year or more below grade level, or below the 25th percentile, is larger than the corresponding number of poor students.

CE Selection, Economic Status, and Educational Status

Figure V-1 includes the estimates of joint percentages for all students in grades 2-6. It is initially divided into four groups based on students' economic status and basic achievement. Group 1 represents the low-income students who are low achievers (about 9 percent of the total). Group 2 is the non-poor low achievers – about 14 percent of all students in grades 2-6. Group 3 includes low-income regular achievers (12%), and Group 4 accounts for the non-poor regular achievers (65%).

Each of these four groups is again divided in the Figure to show CE selection status. The shading in the Figure indicates what proportions of each group are selected for Title I, selected for other CE, and not selected for any CE. Finally, each division within the large square has a percentage value associated with it, indicating the proportional contribution of that subgroup to the total population.

Table V-3 summarizes the estimated population percentages and projects numbers of students in grades 2-6 selected for various CE according to their family economic status and educational achievement level. Both Table V-3 and Figure V-1 present the following information about students in grades 2-6.

- Nine out of 100 students who are economically disadvantaged achieve at one year or more below grade level. Of these, four have been selected for Title I participation, one has been selected to participate in a non-Title I CE program, and the remaining four have not been selected for any CE.
- Fourteen out of 100 students are low achievers but are not economically disadvantaged. Of these, four are selected for Title I, two are selected for other CE, and the remaining eight are not selected for CE services.

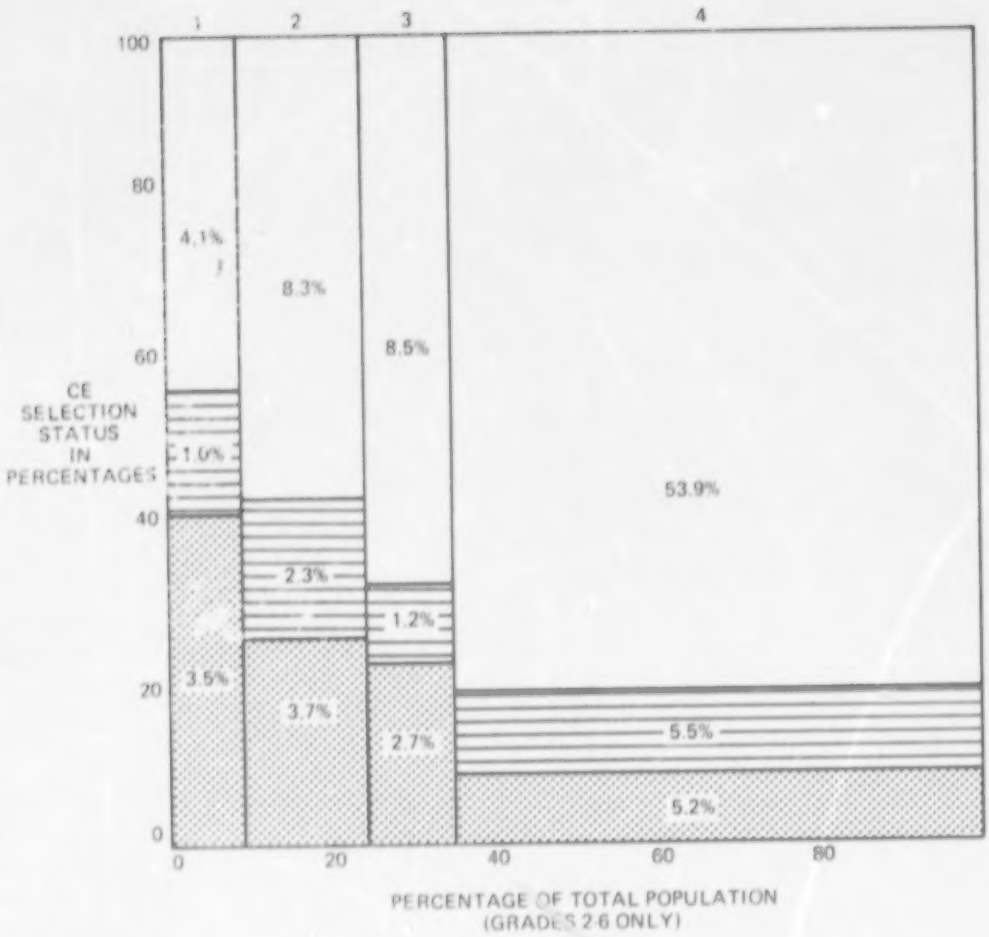


Figure V-1

Estimated Population Percentages Of Students' Compensatory Education Selection Status, Family Economic Status, And Basic Achievement

Table V-3

Estimated Population Percentages And Numbers (In Thousands)
Of Students' Compensatory Education Selection Status,
Family Economic Status, And Basic Achievement*

CE Selection Status	Projected Percentage	Projected Frequency
SELECTED FOR TITLE I		
Poor/AFDC Low Achievers	3.5	573
Poor/AFDC Regular Achievers	2.7	442
Non-poor Low Achievers	3.7	606
Non-poor Regular Achievers	5.2	851
SELECTED FOR OTHER CE ONLY		
Poor/AFDC Low Achievers	1.2	196
Poor/AFDC Regular Achievers	1.0	164
Non-poor Low Achievers	2.3	376
Non-poor Regular Achievers	5.5	900
NOT SELECTED FOR ANY CE		
Poor/AFDC Low Achievers	4.1	671
Poor/AFDC Regular Achievers	8.5	1,391
Non-poor Low Achievers	8.3	1,358
Non-poor Regular Achievers	53.9	8,821
Totals	99.9	16,349

*Grades 2-6 Only.

- Twelve out of 100 students are from poor families and are regular achievers. Three of these twelve are selected for Title I programs. One is selected for other CE, and the remaining eight are not selected for any CE.
- Finally, 65 out of 100 students are neither low achievers nor from poor families. However, five of these are selected for Title I, six are selected for other CE, and fifty-four are not selected for any CE.

A total of 35 students out of every 100 are economically needy, educationally needy, or both. Of these, ten are selected for Title I programs. Another four are selected for other CE. Twenty-one economically and/or educationally needy children are not selected for any services. Of the 65 students in every 100 who are not economically or educationally needy, five are selected for Title I services and slightly more for other CE.

So, for every 15 students selected for Title I, 10 are economically and/or educationally disadvantaged according to the criteria for this study (see Chapter I). Of the ten students selected for other CE, less than five are economically and/or educationally disadvantaged. Therefore, it appears that the Title I selection process identifies for participation the economically and/or educationally disadvantaged at a greater rate (67%) than do the selection procedures for other CE (45%), which may have other selection criteria.

Data for further analysis of the way economic and educational status differentiate between students selected and not selected for CE are presented in Tables V-4 and V-5. Table V-4 includes estimates of the conditional percentages and numbers of students in grades 2-6 for CE selection status, family economic status, and basic achievement level. Forty percent of all poor low-achieving students are selected for Title I programs. These students number nearly 600,000. Another 14 percent, or approximately 200,000 poor low-achieving students, are selected for other CE. The remaining poor low-achievers are not selected for any CE. Less than 7 percent, or approximately 100,000 students are poor, low-achieving, and attend schools where no compensatory services are offered.

Among the non-poor low-achieving students, 26 percent are selected for Title I. The proportion is less than that for poor low-achievers, but the number of students actually selected is slightly higher. Overall, about 1.2 million low-achievers in grades 2-6 are selected for Title I, with slightly more than half coming from families that are not economically disadvantaged. Also, 16 percent of the non-poor low-achieving students are selected for other CE. Nearly 575,000 low-achieving students are selected for other CE, with only one-third coming from poor families. Thus, while the proportion of poor low-achieving CE selectees is greater than for non-poor low achievers, the actual number of selectees is smaller.

This pattern holds when one looks at the poor and non-poor regular achievers. The greater proportion of CE selectees occurs with the poor (30%) rather than the non-poor (17%), but the greater number of students selected comes from the non-poor group (1.7 million compared to 600,000). In fact more non-poor regular achievers are selected for non-Title I CE than all other groups combined. This is not totally unexpected, given the difference between the selection pattern for Title I, which focuses on both poverty and low achievement, and the pattern for other CE, which does not focus on these two groups to the same degree.

Still, two out of every three non-poor regular achievers attend schools where CE services are available, but are not selected for such services. This represents more than 7 million students. Another 1.8 million non-poor regular achievers attend schools where no CE is offered.

Table V-5 helps clarify the question of the regular achievers who are selected for Title I services. (Since first-graders are included in this table, the size of each of the groups is larger than that identified under the basic achievement variable.) Looking at the first quarter under both the poor and non-poor categories, it can be seen that the proportions follow closely those outlined for the low achievers in Table V-4. The percentages indicated for the four CE selection categories for the poor and non-poor students in the first quarter parallel (within 1 percent in each case) those given for the poor and non-poor low achievers in Table V-4. However, by also focusing on the second, third, and fourth quarters, Table V-5 permits a more careful analysis of students whose achievement is slightly different from the low achiever/regular achiever analysis in Table V-4.

Table V-4

Estimated Population Percentages And Numbers (In Thousands)
Of Students' Compensatory Education Selection Status
By Family Economic Status And Basic Achievement

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/AFDC					
Basic Achievement*					
Low Achiever	39.9 (575)	13.9 (200)	39.5 (569)	6.7 (96)	99.9 (1,440)
Regular Achiever	22.3 (445)	7.7 (154)	61.9 (1,236)	8.1 (162)	100.0 (1,997)
NON-POOR					
Basic Achievement*					
Low Achiever	25.9 (606)	15.9 (372)	43.2 (1,011)	15.0 (351)	100.0 (2,340)
Regular Achiever	8.2 (868)	8.3 (879)	66.8 (7,073)	16.7 (1,768)	100.0 (10,588)
Total Counts** (Thousands)	2,494	1,605	9,889	2,377	16,365

*Grades 2-6 Only.

**The slight differences from the frequencies listed previously for CE Selection Status are due to rounding errors.

The data indicate that selection in both the poor and non-poor categories proceeds in a fairly orderly fashion according to achievement. While over 764,000 students in the first quarter are poor and are Title I selectees, the number of poor selectees in the fourth quarter is about 32,000. Among the non-poor, the range is from 815,000 to approximately 57,000. In other words, fewer poor students than non-poor students in the upper half of the percentile distribution are selected for Title I. However, the proportion of low-income students selected for Title I exceeds that of the non-poor.

Table V-5

Estimated Population Percentages And Numbers (In Thousands)
Of Students' Compensatory Education Selection Status
By Family Economic Status And Education Status

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
POOR/AFDC					
Educational Status					
Bottom Quarter	40.6 (764)	13.1 (246)	39.5 (743)	6.8 (128)	100.0 (1,881)
Second Quarter	29.8 (356)	10.4 (124)	52.8 (632)	7.0 (84)	100.0 (1,196)
Third Quarter	10.4 (79)	6.7 (51)	74.3 (562)	8.6 (65)	100.1 (757)
Top Quarter	9.3 (32)	5.6 (20)	76.2 (264)	8.9 (31)	100.0 (347)
NON-POOR					
Educational Status					
Bottom Quarter	26.4 (815)	15.3 (472)	44.3 (1,367)	14.0 (432)	100.0 (3,086)
Second Quarter	15.1 (554)	11.4 (419)	59.3 (2,177)	14.2 (521)	100.0 (3,671)
Third Quarter	6.6 (289)	8.2 (360)	69.3 (3,038)	15.9 (697)	100.0 (4,384)
Top Quarter	1.2 (57)	6.0 (281)	74.9 (3,508)	17.9 (838)	100.0 (4,684)
Total Counts* (Thousands)	2,946	1,973	12,291	2,796	20,006

*The slight differences from the frequencies listed previously for CE Selection Status are due to rounding errors.

In grades 2-6, nearly 900,000 students were counted as non-poor, regular-achieving Title I selectees (see Table V-4). In Table V-5, which includes grades 1-6, the number of selectees in the third and fourth quarters (those achieving above the national median) is slightly less than 350,000. This indicates that most of these regular achieving Title I students (using the year-below-grade-level cutoff point) from non-poor families probably border on low achievement and score below the national median. The same thing is true for students from poor families. The total number of students from poor families who achieve above the median and who are selected for Title I is less than the number of poor students who are categorized as regular achievers in the basic achievement distribution, even though first-graders are included only in the former case.

More students, proportionally and in total numbers, whose families are not poor, are selected for other CE programs than is true for children of the poor. The selection rates according to percentile distribution for both the poor and the non-poor follow a similar pattern. As one moves from the first to the fourth quarter, the proportion and number of students selected drops considerably.

Tables V-6 and V-7 present the data describing students in Title I schools only. Both tables indicate that the selection pattern in Title I schools is similar to that for all schools. The largest number of Title I selectees are both economically and educationally needy; the next largest number are educationally deprived; and the smallest number are just economically disadvantaged.

Overall, data presented here indicate an effort to select the most needy students, particularly in terms of educational status, for participation in CE.

Demographic Profiles

In this section, profiles are presented of the four types of students discussed in the first two sections: the low achiever from a low-income family, and the regular achiever from a non-poverty family. The CE selection status for these subgroups is also shown. Hence, the data are being expanded to deal not only with the three principal variables of the study (economic status, educational status, and CE selection status) but also with demographic features. Note, however, that when the four variables are used simultaneously, the data describing the subgroupings involve the smallest Ns, and hence are least accurate. Percentages for these data have been rounded to the nearest whole numbers.

Racial/Ethnic Groups. Table V-8 presents estimates of the population percentages of low-achieving and regular-achieving students by economic status and racial/ethnic groupings. Thirty-one percent of the white students from low-income families rank as low achievers. Poor minority-group students tend to cluster disproportionately in the low-achiever category. Fifty-five percent of all blacks from poverty families and 48 percent of all poor members of other racial or ethnic groups are counted among the low achievers.

This same pattern holds, but with less intensity, among non-poor students who are also low achievers. Whites (15%) have the smallest proportion of students identified as low achievers. Minority students (40 percent of the non-poor black, 40 percent of the non-poor Hispanic, and 16 percent of other racial/ethnic groups) contribute disproportionately large elements to the non-poor low achievers.

Table V-6

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Basic Achievement In Title I Schools*

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE (%)	TOTALS (%)
POOR/AFDC				
Basic Achievement				
Low Achiever	48.9	10.9	40.2	100.0
Regular Achiever	27.4	7.6	65.1	100.1
NON-POOR				
Basic Achievement**				
Low Achiever	38.9	15.0	46.1	100.0
Regular Achiever	13.1	10.0	76.9	100.0

*The universe sampled was not based on all Title I Schools; hence, no total student counts have been estimated.

**Grades 2-6 Only.

Table V-7

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status And Educational Status In Title I Schools*

Economic Status	CE Selection Status: Title I/Title I and Other CE (%)	Other CE Only (%)	No CE (%)	TOTALS (%)
POOR/AFDC				
Educational Status				
Bottom Half	43.8	10.3	45.9	100.0
Top Half	12.7	6.8	80.5	100.0
NON-POOR				
Educational Status				
Bottom Half	29.8	13.2	57.1	100.1
Top Half	6.2	8.9	84.9	100.0

*The universe sampled was not based on all Title I Schools; hence, no total student counts have been estimated.

Table V-8
Estimated Population Percentages Of Students' Basic Achievement By Family Economic Status And Racial/Ethnic Group

Economic Status	Basic Achievement* Low Achiever (%)	Regular Achiever (%)	TOTALS (%) (Thousands)
POOR/AFDC			
Racial/Ethnic Group			
White	30.5	69.5	100.0 (1,673)
Black	55.1	44.9	100.0 (1,216)
Spanish	47.8	52.2	100.0 (453)
Other	45.1	54.9	100.0 (95)
NON-POOR			
Racial/Ethnic Group			
White	15.1	84.9	100.0 (11,118)
Black	39.8	60.2	100.0 (1,008)
Spanish	40.2	59.8	100.0 (556)
Other	16.1	83.9	100.0 (246)
Total Counts (Thousands)	3,797	12,568	16,365

*Grades 2-6 Only.

Table V-9 includes estimates of the population percentages for achievement by poverty and language spoken regularly in the home. Here the effects on students who come from non-English-speaking families, particularly from those homes where Spanish is the major language, can be seen. Forty-one percent of the English-speaking students from poverty backgrounds, and 17 percent of the English-speaking students outside poverty, fit into the low-achiever category. These are smaller figures than those for Spanish-speaking students, where 48 percent of those from poor families and 39 percent of those from non-poor families are low achievers. On the average, the effect of regularly speaking a language other than English or Spanish in the home is most pronounced among the poor, where 36 percent of the group are low achievers. Among the non-poor, the figure drops to 15 percent.

Table V-10 provides estimates of the population percentages of students selected for CE by family economic status, basic achievement, and racial/ethnic groupings. The following general points can be gleaned from the data:

- Among low achievers from low-income families there is little difference among racial/ethnic groups in their Title I selection status. Title I selection for these subgroups ranges between 38 percent and 41 percent. However, selection for other CE does vary by racial/ethnic category for these low-achieving, low-income students. Twenty percent of the Hispanics, 16 percent of the whites, and only 10 percent of the blacks in the "poor, low-achiever" category are selected for other CE. Hence, in this first group, Hispanics are selected most frequently for all CE (58%), whites next most frequently (55%), and blacks least frequently (51%).

- Among non-poor low achievers, whites (24 percent Title I and 17 percent other CE) and blacks (28 percent Title I, and 11 percent other CE) share similar selection rates. However, non-poor low-achieving Hispanics are selected for Title I at a much higher rate (45%) than either of the other groups.

- The percentage of low-achieving whites and blacks from poor families selected for Title I is larger than the percentage of low-achieving white and black selectees from non-poor families. The opposite is true for Hispanics. Low-achieving non-poor Hispanics have a higher Title I selection rate (45%) than low-achieving poor Hispanics (38%).

- Among regular achievers from low-income homes, CE selection rates are highest for Hispanics (37%), followed by blacks (31%), and lastly whites (27%).

- Among regular achievers from families above the poverty threshold, whites (8%) are selected less frequently for Title I than either blacks (15%) or Hispanics (14%). Hispanic selection for other CE is more than double the rates for blacks or whites.

In all four cases presented in Table V-10, Hispanics have the highest CE selection rates. In the poor and non-poor low achiever categories, white students (55% and 41%) have a higher selection rate than black students (51% and 39%); but for poor and non-poor regular achiever categories the situation is reversed, and the selection rate is higher for blacks (31% and 22%) than whites (27% and 16%). The basic differences between selection rates for blacks and whites are that among low achievers (poor and non-poor alike), more whites are selected and among regular achievers (poor and non-poor alike), selection for Title I is higher for blacks.

Table V-9

Estimated Population Percentages Of Students' Basic Achievement By Family Economic Status And Language Spoken Regularly In The Home

Economic Status	Basic Achievement* Low Achiever (%)	Regular Achiever (%)	TOTALS (%) (Thousands)
POOR/AFDC			
Language Spoken in Home			
English	41.1	58.9	100.0 (2,829)
Spanish	47.9	52.1	100.0 (474)
Other	35.8	64.2	100.0 (134)
NON-POOR			
Language Spoken in Home			
English	17.2	82.8	100.0 (11,752)
Spanish	38.6	61.4	100.0 (608)
Other	15.1	84.9	100.0 (568)
Total Counts (Thousands)	3,797	12,568	16,365

*Grades 2-6 Only.

Table V-10

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status, Basic Achievement, And Racial/Ethnic Group*

Economic Status and Educational Status	CE Selection Status: Title I/ Title I and Other CE (%)	Other CE Only (%)	No CE (%)	TOTALS (%)
POOR/AFDC LOW ACHIEVER				
Racial/Ethnic Group				
White	39	16	45	100
Black	41	10	49	100
Hispanic	38	20	42	100
NON-POOR LOW ACHIEVER				
Racial/Ethnic Group				
White	24	17	59	100
Black	28	11	61	100
Hispanic	45	16	40	101
POOR/AFDC REGULAR ACHIEVER				
Racial/Ethnic Group				
White	20	7	72	99
Black	24	7	68	99
Hispanic	25	12	63	100
NON-POOR REGULAR ACHIEVER				
Racial/Ethnic Group				
White	8	8	84	100
Black	15	7	79	101
Hispanic	14	18	69	101

*Grades 2-6 only; N of "Other" Racial/Ethnic Category too small to represent in table.

Grades. The effect of poverty is fairly consistent across all grades (see Table V-11). Between 44 percent and 49 percent of the students from poor families in grades 2-6 achieve in the bottom quarter. The achievement of first-graders from low-income families appears to be slightly higher, for only 37 percent fall into the bottom quarter.

Table V-11

Estimated Population Percentages Of Students' Educational Status By Family Economic Status And Grade

Economic Status	Educational Status: Bottom Quarter (%)	Second Quarter (%)	Third Quarter (%)	Top Quarter (%)	Totals (%) (Thousands)
POOR/AFDC					
Grade					
First	37.4	26.6	23.8	12.1	100.0 (749)
Second	49.1	27.8	16.0	7.0	99.9 (670)
Third	47.5	28.8	15.9	7.8	100.0 (720)
Fourth	45.8	28.4	16.2	9.6	100.0 (715)
Fifth	45.1	31.0	18.3	5.6	100.0 (641)
Sixth	44.3	30.3	18.5	6.9	100.0 (666)
NON-POOR					
Grade					
First	22.8	22.3	27.9	27.0	100.0 (2,915)
Second	18.1	23.9	27.7	30.3	100.0 (2,583)
Third	17.3	22.1	29.7	30.9	100.0 (2,567)
Fourth	20.4	22.2	28.1	29.3	100.0 (2,393)
Fifth	18.6	24.5	28.0	29.0	100.1 (2,440)
Sixth	18.8	24.3	25.3	31.6	100.0 (2,947)
Total Counts (Thousands)	4,963	4,866	5,142	5,035	20,006

The largest concentrations of students selected for Title I from the bottom quarter of achievement are found in grades 2-4, whether poor (46%) or non-poor (32%) (see Table V-12). Among first-grade students who achieve below the 25th percentile and who come from low-income families, less than half (46%) are selected for any form of CE; more than half those in grades 2-4 (57%) and grades 5 and 6 (51%) in this category are selected for some type of CE.

Table V-12

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status, Educational Status, And Grade*

Economic Status and Educational Status	CE Selection Status: Title I/ Title I and Other CE	Other CE Only	No CE	TOTALS
POOR/AFDC BOTTOM QUARTER				
Grade				
First	32	14	54	100
Second-Fourth	46	11	42	99
Fifth & Sixth	35	16	49	100
NON-POOR BOTTOM QUARTER				
Grade				
First	12	10	78	100
Second-Fourth	32	17	51	100
Fifth & Sixth	28	17	55	100
POOR/AFDC TOP THREE QUARTERS				
Grade				
First	25	10	64	99
Second-Fourth	21	8	71	100
Fifth & Sixth	16	8	76	100
NON-POOR TOP THREE QUARTERS				
Grade				
First	7	9	84	100
Second-Fourth	8	9	83	100
Fifth & Sixth	6	7	88	101

*Due to similarities in CE Selection Status, students in grades 2, 3, and 4 and those in grades 5 and 6 have been aggregated for this table.

A first-grader whose achievement is in the bottom quarter has a much greater chance of being selected for Title I if the first grader is poor (32%) rather than non-poor (12%). The same pattern holds for the other grades, but the differences in selection rates are not as great. For second-through-sixth-graders with the lowest achievement, chances of selection for other CE are better for the non-poor than the poor.

Among students from poverty households who achieve above the 25th percentile, CE selection decreases as grade level increases. Thirty-five percent of the students in grade 1 are selected for CE, compared to 24 percent in grades 5 and 6. Among the non-poor, the change is not nearly so great.

Sex of Student. Male students achieve at a slightly lower level than do female students, regardless of poverty status (see Table V-13). Forty-four percent of the boys from poor families are classified as low achievers, while the figure for girls from poor families is only 39 percent. Among the non-poor the gap widens slightly, with 21 percent of the boys falling into the low-achievement category compared to only 15 percent of the girls.

Table V-13

Estimated Population Percentages Of Students' Basic Achievement By Family Economic Status And Sex Of Student

Economic Status	Basic Achievement* Low Achiever (%)	Regular Achiever (%)	Totals (%) (Thousands)
POOR/AFDC			
Sex of Student			
Female	38.9	61.1	100.0 (1,691)
Male	44.0	56.0	100.0 (1,746)
NON-POOR			
Sex of Student			
Female	14.6	85.4	100.0 (6,322)
Male	20.8	79.2	100.0 (6,606)
Total Counts (Thousands)	3,797	12,568	16,365

*Grades 2-6 Only.

Boys, regardless of economic or educational status, are selected at a slightly greater rate for participation in all CE services than girls (Table V-14). However, a slightly larger proportion of low-achieving girls are selected for Title I than boys. The pattern is reversed for regular-achieving students, where a greater proportion of boys are selected than girls.

Table V-14

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status, Basic Achievement, And Sex Of Student

Economic Status and Basic Achievement*	CE Selection Status: Title I/ Title I and Other CE (%)	Other CE Only (%)	No CE (%)	Totals (%)
POOR/AFDC LOW ACHIEVER				
Sex of Student				
Female	41	12	47	100
Male	39	16	45	100
NON-POOR LOW ACHIEVER				
Sex of Student				
Female	27	15	58	100
Male	26	17	56	99
POOR/AFDC REGULAR ACHIEVER				
Sex of Student				
Female	20	8	72	100
Male	25	8	68	101
NON-POOR REGULAR ACHIEVER				
Sex of Student				
Female	7	8	86	101
Male	10	9	81	100

*Grades 2-6 Only.

Urbanism. The greatest proportion of economically disadvantaged students who are low achievers come from large cities (see Table V-15). Nearly one in every two students from poor families in a large city can be counted as a low achiever. The proportion drops to two in five for medium-sized and small cities, and further decreases to just slightly more than one in three for the economically disadvantaged in the suburbs and rural areas. Among the

non-poor, the low-achievement pattern is somewhat similar. However, non-poor rural students' achievement patterns are similar to those of students from small and medium-sized cities.

Table V-15

Estimated Population Percentages Of Students' Basic Achievement By Family Economic Status And Urbanism

Economic Status	Basic Achievement*		
	Low Achiever (%)	Regular Achiever (%)	Totals (%) (Thousands)
POOR/AFDC			
Urbanism			
City Over 200,000	49.6	50.4	100.0 (1,069)
City From 50,000–200,000	40.3	59.7	100.0 (351)
City Under 50,000	40.2	59.8	100.0 (931)
Suburb	35.5	64.5	100.0 (196)
Rural	36.3	63.7	100.0 (890)
NON-POOR			
Urbanism			
City Over 200,000	28.9	71.1	100.0 (1,396)
City From 50,000–200,000	16.2	83.8	100.0 (1,706)
City Under 50,000	18.0	82.0	100.0 (4,098)
Suburb	12.9	87.1	100.0 (1,966)
Rural	17.8	82.2	100.0 (3,762)
Total Counts (Thousands)	3,797	12,568	16,365

*Grades 2-6 Only.

Table V-16 indicates that low achievers from low-income families with the highest Title I selection rates come from large urban areas (44%) and rural locations (49%). Next come small cities (38%), suburbs (25%), and finally medium-sized cities (19%). This Title I selection pattern is repeated in a fairly consistent manner across the other three subgroups. Large cities and rural areas usually have the highest selection rates for Title I, followed by small cities, suburbs, and medium-sized cities – regardless of poverty and achievement status.

The pattern identified above does not hold for selection to other CE. In three of the four subgroups (poor low achievers, non-poor low achievers, and poor regular achievers), selection rates for other CE are highest in the suburbs. For low achievers these rates exceed the Title I selection rates, indicating that in the suburbs, other CE is the predominant compensatory service.

For students from medium-sized cities, where Title I selection rates are lowest (particularly for the educationally needy), selection for other CE generally does not offset the low Title I selection rate. Only among the non-poor low achievers and regular achievers does selection for other CE rise higher than that for Title I. Overall selection for CE runs between 12 percent and 33 percent for students from medium-sized cities – by far the lowest of any subgroups.

Geographic Region. The largest concentrations of economically and educationally disadvantaged students occur in the Mid-Atlantic, Southern, and Western states, where about 45 percent of the students from low-income families are also classified as low achievers (see Table V-17). In the other two regions, the Northeast and the Midwest, 37 percent of the students from poor families are counted as low-achieving. The pattern of low achievement holds when one looks at students not in poverty. The South (24%), the West (24%), and the Mid-Atlantic states (20%) have the highest percentage of low achievers.

The Northeast has the most comprehensive selection pattern for low achievers from poor and non-poor families combined (Table V-18). Sixty-one percent of the poor low achievers and 62 percent of the non-poor low achievers are selected for CE. Title I selection is emphasized for the poor low achievers (38%), while other CE selection covers more of the non-poor low achievers (32%).

In the Mid-Atlantic states, about the same proportion of poor low achievers (20%) and poor regular achievers (19%) are selected for Title I services. Both these proportions exceed the non-poor low achievers selected for Title I (17%). Poor low achievers in Mid-Atlantic states are selected more frequently for other CE (29%) than for Title I.

The data confirm the reliance in the Southern states on Title I programs for the economically disadvantaged. Forty-seven percent of the low achievers from poverty households and 32 percent of the regular achievers from such households are selected for Title I. Other CE selection for these two groups is between 2 percent and 3 percent. Also, non-poor low achievers (24 percent selected for Title I) are not selected for Title I programs at the same rate as regular achievers from families below the poverty line.

Table V-16

Estimated Population Percentages Of Students' Compensatory Education Selection Status By Family Economic Status, Basic Achievement, And Urbanism

Economic Status and Basic Achievement*	CE Selection Status: Title I/ Title I and Other CE (%)	Other CE Only (%)	No CE (%)	Totals (%)
POOR/AFDC LOW ACHIEVER				
Urbanism				
City Over 200,000	44	15	42	101
City From 50,000–200,000	19	14	67	100
City Under 50,000	38	11	51	100
Suburbs	25	27	48	100
Rural	49	13	38	100
NON-POOR LOW ACHIEVER				
Urbanism				
City Over 200,000	34	14	53	101
City From 50,000–200,000	11	20	70	101
City Under 50,000	27	10	63	100
Suburbs	24	31	45	100
Rural	26	16	57	99
POOR/AFDC REGULAR ACHIEVER				
Urbanism				
City Over 200,000	25	9	65	99
City From 50,000–200,000	12	9	79	100
City Under 50,000	19	5	76	100
Suburbs	14	10	76	100
Rural	29	9	63	101
NON-POOR REGULAR ACHIEVER				
Urbanism				
City Over 200,000	12	5	84	101
City From 50,000–200,000	4	8	89	101
City Under 50,000	9	6	84	99
Suburbs	3	10	87	99
Rural	10	12	78	100

*Grades 2-6 Only.

Table V-17

Estimated Population Percentages Of Students'
Basic Achievement By Family Economic Status And Geographic Region

Economic Status	Basic Achievement*		
	Low Achiever (%)	Regular Achiever (%)	Totals (%) (Thousands)
POOR/AFDC			
Geographic Region			
Northeast	36.9	63.1	100.0 (711)
Mid-Atlantic	44.7	55.3	100.0 (289)
South	45.6	54.4	100.0 (1,145)
Midwest	36.7	63.3	100.0 (701)
West	45.3	54.7	100.0 (591)
NON-POOR			
Geographic Region			
Northeast	13.5	86.5	100.0 (2,431)
Mid-Atlantic	20.4	79.6	100.0 (1,719)
South	23.5	76.5	100.0 (3,180)
Midwest	12.4	87.6	100.0 (3,698)
West	24.2	75.8	100.0 (1,900)
Total Counts (Thousands)	3,797	12,568	16,365

*Grades 2-6 Only.

Table V-18
Estimated Population Percentages Of Students'
Compensatory Education Selection Status
By Family Economic Status, Basic Achievement, And Geographic Region

Economic Status and Basic Achievement*	CE Selection Status: Title I/ Title I and Other CE (%)	Other CE Only (%)	No CE (%)	Totals (%)
POOR/AFDC LOW ACHIEVER				
Geographic Region				
Northeast	38	23	39	100
Mid-Atlantic	20	29	51	100
South	47	3	50	100
Midwest	38	10	52	100
West	42	22	37	101
NON-POOR LOW ACHIEVER				
Geographic Region				
Northeast	30	32	38	100
Mid-Atlantic	17	17	66	100
South	24	7	69	100
Midwest	31	16	54	101
West	28	19	53	100
POOR/AFDC REGULAR ACHIEVER				
Geographic Region				
Northeast	16	11	74	101
Mid-Atlantic	19	13	68	100
South	32	2	66	100
Midwest	18	3	79	100
West	20	19	60	99
NON-POOR REGULAR ACHIEVER				
Geographic Region				
Northeast	7	19	73	99
Mid-Atlantic	7	6	87	100
South	8	3	88	99
Midwest	9	5	86	100
West	8	12	80	100

*Grades 2-6 Only.

In the Midwest where achievement is the highest, selection for Title I services focuses primarily on the poor low achiever (38%) and the non-poor low achiever (31%). Other CE programs contribute only slightly more to the selection pattern in the Midwest than they do in the South.

In the Western states a consistent proportion of students are selected for other CE from all subgroups. Twenty-two percent of the poor low achievers, 19 percent of the non-poor low achievers and poor regular achievers, and 12 percent of the non-poor regular achievers are selected for other CE. Again, a contribution factor might be the inclusion of bilingual programs, which are prevalent in the West, into the category of other CE. In the West, the difference between the proportion of low achievers who are economically disadvantaged and selected for Title I (42%) and the proportion of low achievers who are not economically disadvantaged and selected for Title I (28%) is the largest outside the South.

Summary

How do the combined measures of economic and educational status differentiate between those students selected and not selected for Title I and other CE services? The data collected to answer that question indicate that Title I selection patterns do concentrate on students who are economically and educationally disadvantaged. About 40 percent of the students classified as low achievers from poverty families are selected for Title I. Another 14 percent are selected for other CE programs. Of those low-achieving students outside of poverty, 26 percent are selected for Title I and 16 percent for other CE. Twenty-two percent of the low-income students who are regular achievers are selected for Title I, and another 8 percent for other CE. Only 8 percent of the non-poor regular achievers are selected for Title I, and another 8 percent for other CE. Hence, the group of students with the greatest proportion selected for Title I and other CE is the economically and educationally needy.

The group with the lowest proportion of selectees is neither economically nor educationally needy.

When educational status is operationalized in quarters of halves instead of year-below-grade-level, it can be seen that the selection patterns adequately reach the "near poor" and "near low achiever." It is important that among the many "regular achievers" who are selected for Title I, most rank below the national median in achievement. Since median achievement is a major threshold for consideration under current Title I regulations, the Title I selection pattern includes more students than can be indicated using the basic achievement variable.

Other tendencies include:

- Minority groups are represented to a greater degree among the economically and/or educationally needy, and in the Title I selection group, than majority students.
- Selection focuses on the early grades (particularly 2-4), regardless of achievement, while economic and/or educational disadvantagement impacts all grades about the same.

- A greater proportion of boys than girls are economically and educationally needy. However, among low achievers Title I selection rates slightly favor girls, regardless of economic status, while among regular achievers they slightly favor boys. Selection to other CE generally favors boys across all economic and educational subgroups.

- Economic and educational disadvantagement are related to urbanism, with the one exception that the rural non-poor contribute more to low achievement than one would expect. Title I selection follows the pattern of economic and educational disadvantagement, which is heaviest in large cities and rural areas.

- There is a slight geographical pattern to the national distribution of economically and/or educationally needy students. The Title I selection pattern follows the geographical pattern. In the South, the selection pattern for the poor is similar to that for rural areas. That is, almost as many regular-achieving poor as low-achieving poor are selected for Title I programs. In this, the South breaks with the national pattern. Also, in the South there is a genuine lack of programs funded by non-Title I sources.

In summary, children who are economically and educationally disadvantaged are selected for CE, particularly Title I, at a greater rate than other children. Next come children who are low-achieving but not economically needy, followed by regular achievers from low-income families. Finally, CE selection rates include small percentages of students who are neither low-achieving nor from low-income families.

CHAPTER VI. ALTERNATE DEFINITIONS OF FAMILY ECONOMIC STATUS AND STUDENT ACHIEVEMENT

This chapter specifies alternate definitions to be considered as measures of economic status and student achievement. Up to this point, we have limited our investigation of the relationship between poverty and CE selection to the definition of economic status specified in the funds allocation formula of the enabling legislation: namely, children from poor families (defined by the 1976 Orshansky index), those from households receiving AFDC payments with money incomes above the poverty level, and institutionalized neglected or delinquent students and foster children attending public schools. In this section nine other estimates of economic disadvantage that could also be used to target areas with large numbers of poor children will be analyzed, and several alternative definitions of student achievement will be examined. Each of these alternative definitions is shown with a descriptive profile of the groups counted under that definition. Populations counted under one definition of poverty are compared with those counted under alternate definitions. Those alternate measures that appear to include the same group of students are identified and considered substitutable for each other.

The first part of this chapter is devoted to alternate definitions of poverty, in the second section alternate definitions of student achievement are considered. The final section focuses on the relationships between alternate measures of poverty and achievement that define potential CE groups.

Alternate Poverty Measures

In the Measure of Poverty (U.S. DHEW, 1976), a special task force reported on a number of alternate definitions of poverty as required by Section 822 of the 1974 Education Amendments. A variety of approaches to the measurement of poverty have been attempted by various policy-making and academic groups, with the objective of identifying the economically needy in this country more accurately. Those used in this section are based on money income, and may be categorized in the following way:

- Measures based on the current extended poverty matrix established by Mollie Orshansky in 1964 and adopted in 1969 by the Office of Management and Budget as the Federal Government's official statistical measure of poverty.
- Measures based on a definition of poverty related to the national median income or some other standard.
- Measures based on a revision of the costs and assumptions underlying the current poverty matrix.

The current poverty matrix is based on the minimal housing and nutritional needs of a family of four. The cash income required to meet those needs establishes the point that separates the poor and non-poor. A system of equivalence multipliers expands this poverty cutoff

point into 124 cells of the poverty matrix representing various combinations of size of family and household, sex of family head and place of residence. If a family's total income drops below the cutoff point within its cell, the family is identified as poor. Families with incomes above the cutoff point are identified as non-poor.

Measures Based on Current Poverty Matrix. The current poverty matrix can be used in either of two forms: the extended 124-cell version or a weighted average threshold version. The first uses data from all 124 cells to establish the number of families in economic need. The second reduces the 124-cell matrix by taking a weighted average across numbers of related children to produce a simplified matrix. Since the number of related children is of great importance to this study, all alternate measures of poverty will be based on the full 124-cell poverty matrix. Alternate definitions based on the current poverty matrix usually increase or decrease the poverty cutoff point for each cell by some fixed percent of the current value. Four such percentage increases in the current poverty matrix will be discussed in this section. Measures of 115 percent and 125 percent of the current poverty matrix include the so called "near-poor," whose money incomes hover near the poverty line. These families may frequently move in and out of poverty. Measures of 150 percent and 200 percent of the current poverty matrix expand the concept of poverty.

Included by these measures are those who would have to experience considerable difficulty (i.e., prolonged unemployment of the main income earner) to be considered poor by the current standard.

A Relative Measure of Poverty. The relative measure of poverty used as an alternative to Orshansky focuses on the current median income for a family of four. This index relates economic status to the income of the national population. It is, therefore, *relative* to the earnings of others, not *absolute* in terms of need. By taking one-half of the 1976 median income for a family of four, a relative poverty cutoff has been established for this analysis. Again, using a system of equivalence multipliers, that value is converted into poverty cutoffs for families ranging in size from two to eleven or more.

Revision of the Current Poverty Matrix. This approach to defining poverty revises upward the assumptions concerning minimal housing and nutritional needs upon which the original poverty matrix was based. It produces an updated Orshansky matrix with higher poverty cutoff points, identifying as "poor" many families who are now defined only as close to the poverty level. This point becomes more obvious when the profile is drawn of those identified as poor by the measure.

Other Poverty Measures. The classification of children according to the Title I allocation criteria used in the earlier chapters of this report is one standard of comparison for the above measures. Participation in a free or reduced-price lunch or breakfast program provides a non-income standard of comparison.

Findings Under Alternative Measures

Table VI-1 shows the percentages and numbers of elementary school students in grades 1-6 who are from poor families, according to each of these alternate measures of poverty. Under "Current Measures," two groups of figures are reported. The 1976 Orshansky, based on the

Table VI-1

Estimated Population Percentages
And Numbers (In Thousands) Of Students
For Alternate Definitions Of Poverty

Alternate Definitions of Poverty	Family Economic Status: Poor (%) (Thousands)	Family Economic Status: Non-Poor (%) (Thousands)
Current Measures		
Orshansky 124 Income Thresholds for 1976 (76 Orshansky)	16.9 (3,381)	83.1 (16,625)
U.S. Census Weighted *Average* Thresholds for 1976	16.5 (3,301)	83.5 (16,705)
Alternative Measures Based On Current (76 Orshansky) Official Poverty Matrix		
115% of Current Poverty[1]	20.6 (4,121)	79.4 (15,885)
125% of Current Poverty	23.0 (4,601)	77.0 (15,405)
150% of Current Poverty	29.2 (5,842)	70.8 (14,164)
200% of Current Poverty	42.4 (8,483)	57.6 (11,523)
Relative Poverty Measure		
Below 50% of Median Family Income[2]	30.3 (6,062)	69.7 (13,944)
Revised Poverty Measure		
Orshansky Update[3]	22.9 (4,581)	77.1 (15,425)
Current Title I Allocation Formula Count		
1976 Current Poverty Plus AFDC/ Institutionalized Children	20.9 (4,181)	79.1 (15,825)
	Received	Not Received
Other Alternatives		
Free School Lunch	31.2 (6,242)	68.8 (13,764)

1. Measure of Current Poverty uses the full 124 income thresholds rather than weighted average thresholds.
2. The relative poverty measure is based on one-half the 1976 median income for a family of four, adjusted for family size.
3. "Orshansky Update" is based on a new poverty matrix reflecting recent family consumption patterns and revised nutritional specifications.

full 124-cell poverty matrix, estimates that almost 17 percent of the children in public school grades 1-6 come from families whose money incomes are at or below the 1976 poverty level. This represents a group of about 3.4 million children. The simplified measure based on weighted average thresholds for 1976 indicates that a slightly smaller percentage (16.5%) of the students in this study come from poor families, for a national projection of 3.3 million children. These two measures are very close. In all further discussions of alternate measures based on current poverty, only the full 124 income thresholds are used.

Alternate measures are also shown for 115 percent, 125 percent, 150 percent, and 200 percent of the current poverty matrix. Raising the current poverty cutoffs to 115 percent increases the number of children in poverty from 3.4 million to 4.1 million. Many children in families with incomes close to the current poverty lines are added. With a cutoff at 125 percent of the current poverty matrix, 23 percent of the children in this study are members of families with incomes below the cutoffs. This represents 4.6 million children. Estimates based on 115 percent and 125 percent of the current poverty matrix suggests that approximately one million children reside in homes now outside the current poverty definition but within the group known to policy-makers as the "near-poor." When the poverty cutoffs are increased to 150 percent, nearly 3 out of 10 (29 percent) of the children in grades 1-6 come from poor families. At 200 percent of current poverty, 42 percent or 8.5 million children would come from poor families.

Examining the relative measure of poverty (50 percent of the 1976 median family income for a family of four) shows that by this definition 30 percent of the children in this study come from poor families. This represents about 6.1 million children. The revised poverty measure shown in Table VI-1 is an update of the standard Orshansky measure. With this approach, an estimated 23 percent of the children come from poor families. This represents 4.6 million children, the same number identified by 125 percent of the current poverty level.

The above findings may be contrasted with the economic measure used in this study. By this definition, 21 percent, or an estimated 4.2 million children, live in families categorized as poor. In terms of numbers of children, this suggests a parallel between the formula count and 115 percent of the poverty cutoff (which includes the near poor).

A last approach to economic status makes no use of family income in its computation. Rather, it is based on participation in a school free or reduced-price lunch or breakfast program. Children participating in free school meal programs total 31 percent of the sample, or an estimated 6.2 million children in public school grades 1-6. Similar numbers of children are counted by 150 percent of the current poverty matrix, and by the relative measure of one-half the 1976 median income.

Profiles of Poverty Groups

The characteristics of the various groups defined as poor under each of the alternate poverty measures are shown in Table VI-2. The first column of Table VI-2 shows the percentages for all children in grades 1-6, based on the Participation Study survey. The remaining columns show the distributions for children from poor families for each of the definitions. The table permits one to select a particular group (blacks, for instance), determine its contribution to

Table VI-2

Estimated Population Percentages Of Students For Alternative Poverty Definitions By Demographic Groups

DEMOGRAPHIC GROUPS	All Children	Students in Families Below Poverty								
		1976 Orshansky (%)	115% of 1976 Orshansky (%)	125% of 1976 Orshansky (%)	150% of 1976 Orshansky (%)	200% of 1976 Orshansky (%)	50% of 1976 Median Income (%)	Orshansky Update (%)	Title I Allocation (%)	Free Lunch (%)
Racial/Ethnic Group										
White	77.9	46.3	49.0	50.6	55.3	62.1	56.3	50.5	48.1	48.3
Black	13.9	37.3	34.6	33.1	29.2	24.3	28.4	32.8	35.9	33.7
Hispanic	6.1	13.6	13.8	13.8	12.8	11.2	12.8	14.3	13.3	15.2
Others	2.1	2.7	2.6	2.5	2.6	2.4	2.5	2.5	2.7	2.8
Language Regularly Spoken in Home										
English	89.1	81.7	81.5	81.5	82.6	83.9	82.6	81.0	82.4	79.7
Spanish	6.7	14.5	14.5	14.5	13.5	12.0	13.5	15.1	13.8	15.9
Other Foreign	4.3	3.8	4.0	4.0	3.9	4.1	3.9	3.9	3.8	4.4
Related Individuals in Household										
3 or less	12.1	12.7	12.8	12.4	12.1	11.8	11.6	11.6	13.5	11.8
4	29.5	17.4	16.9	17.1	17.1	18.8	16.1	15.3	17.5	18.0
5	25.9	19.6	19.5	20.0	20.8	22.4	20.6	19.6	19.6	21.7
6	16.0	16.8	17.3	17.4	17.6	18.8	19.3	18.6	17.3	18.4
7 or more	16.5	33.5	33.6	33.1	32.4	28.2	32.5	34.9	32.1	30.2
Father's Education										
Less than HS Graduate	30.7	67.3	66.0	65.2	61.1	52.7	60.5	66.4	66.3	61.0
HS Graduate some College	51.6	28.5	29.9	30.9	34.2	41.9	35.3	30.5	29.5	34.9
College Grad.	17.7	4.2	4.1	4.0	4.7	5.4	4.3	3.1	4.2	4.2
Mother's Education										
Less than HS Graduate	32.4	65.9	63.7	63.6	59.5	52.5	59.3	64.3	63.4	60.0
HS Graduate some College	8.0	32.2	34.4	34.4	38.3	44.9	38.7	34.2	34.6	37.8
College Grad.	9.6	2.0	1.9	2.0	2.2	2.7	2.0	1.5	2.0	2.3
Geographic Region										
Northeast	19.3	18.3	18.9	19.2	19.6	19.9	19.8	19.4	20.4	17.4
Mid-Atlantic	12.0	7.6	7.7	8.2	8.7	9.6	9.0	8.2	7.9	9.2
South	27.1	39.1	37.7	36.7	34.6	32.7	34.5	37.1	34.5	35.3
Mid-west	26.4	19.3	19.3	18.8	19.4	20.7	19.6	18.3	19.9	17.6
West	15.1	15.7	16.4	17.1	17.6	17.1	17.1	17.1	17.3	20.6
Urbanism										
City over 200,000	15.3	31.8	30.7	30.1	27.8	23.9	26.9	29.5	31.9	31.3
City from 50,000 to 200,000	12.6	9.9	9.3	9.4	9.8	10.6	9.6	9.2	10.6	11.1
City under 50,000	30.5	26.5	27.5	27.5	28.3	29.4	28.6	27.6	27.1	25.6
Suburb of City	13.5	5.6	5.7	5.7	6.2	7.5	6.3	5.8	5.7	6.7
Rural	28.1	26.2	26.7	27.2	27.8	28.6	28.6	27.9	24.8	25.2

the total population (14 percent in the case of blacks), and compare that contribution to the group's percentage of the poor under the various poverty definitions (which range from 24 percent to 37 percent for blacks).

General observations from Table VI-2 include the following:

- The more restricted the definition of poverty (i.e., the closer to 1976 Orshansky), the greater the differences between poor children and all children across each profile variable. As the definition of poverty is expanded, those identified as "poor" more closely resemble the aggregate of all children in the study.
- The percentage of minority children targeted under each measure of poverty is nearly double that in the sample as a whole. The more restricted the definition, the higher the percentage of minority children. Thirty-seven percent of children from poor families are black and 14 percent are of Hispanic origin under the 1976 Orshansky measure. Expanding this definition to 200 percent of the 1976 current poverty matrix, the percentage of poor black children drops to 24 percent, while Hispanics drop to 11 percent.
- English is clearly the dominant language influence in the families of all children. The principal difference among the poor is that a significantly larger percent of poor than of non-po[illegible] likely to come from Spanish-speaking households.
- Poor children are disproportionately concentrated in families with seven or more members and underrepresented in families with four or five members, when compared to all children.
- Parents' education is related to the poverty status of the child. Approximately six out of ten poor children come from homes where the father and mother have failed to complete high school.
- Students in poor families cluster in the South. When the definition of poverty is expanded to include the near-poor, there is also some clustering in the West. Relatively fewer students from families in poverty reside in the Midwest and the Mid-Atlantic states.
- Not unexpectedly, poverty students are concentrated in large urban areas and are relatively scarce in the suburbs.

The above findings confirm most expectations regarding the characteristics of children from families in poverty, according to any definition of poverty. These data may also be used to identify alternate definitions of poverty that describe similar target groups. For instance, families whose children are counted by the Title I allocation formula closely resemble households served under the alternate definition of 115 percent of the 1976 Orshansky poverty matrix. Again, this suggests that the Title I formula includes many of the marginally poor – those whose incomes hover near the poverty line. Cross-tabulating the two groups shows that 89 percent of those identified as poor by the Title I formula are also defined as poor under 115 percent of the current poverty measure.

A second similarity in poverty populations can be identified between the revised Orshansky update and 125 percent of the current poverty matrix. For these two definitions, a cross-tabulation shows that 95 percent of the Orshansky update poor are also classified as poor under the definition of 125 percent of 1976 Orshansky. Still a third similarity is observed between the 1976 median income measure and the alternative measure at 150 percent Orshansky. Ninety-four percent of those designated poor under the median income measure are also counted as poor by 150 percent Orshansky.

Free lunch participation as a surrogate poverty measure fails to parallel other poverty measures closely. It includes about 6.2 million students, more than any other poverty measure except 200 percent of 1976 Orshansky. This one larger measure includes only 85 percent of those who are free lunch recipients, indicating that many of those counted under the free lunch program come from families with incomes that exceed the current poverty measure by more than 200 percent.

The closest poverty measure to free lunch in terms of the number of students counted is the relative measure that focuses on families with incomes below 50 percent of the national median. However, the characteristics of the two groups are different, as described in Table VI-2. The measure that provides group characteristics close to those of free lunch is the Title I allocation formula, but only 79 percent of the children counted by the formula are also participating in a free lunch program.

Strictly speaking, free lunch does not identify the same children as other measures of poverty. This is not surprising, given the different means by which students eligible for free lunch programs are identified. School eligibility is based on "substantial and persistent unemployment" in the school area. This variable is not included in any of the other counts. Student eligibility is determined by school personnel who estimate the student's family income. Where that estimate does not exceed standards set by the state, the child is eligible for a free or reduced-price meal. State standards may not be lower than the Secretary of Agriculture's poverty guidelines (similar to, but generally lower than the Orshansky thresholds) but may exceed those guidelines by 25 percent in the case of eligibility for free meals, or 75 percent in the case of reduced-price meals. Hence, there is great variability from state to state and from school to school in the numbers and types of students counted. The inconsistency of selection criteria set free lunch apart from other poverty measures.

Alternative Definitions of Achievement

The Education Amendments of 1974 defined educational disadvantagement for the purposes of the Participation Study as performance one year or more below grade level. In this study, assessment is made by combining reading and math scores from the CTBS into a grade-equivalent measure. For a child to be identified as a low achiever, the child's total performance on the reading and math tests had to place him or her one year or more below grade level. The general appropriateness of an achievement measure based on grade equivalents has certain technical limitations. In this study, the grade equivalent measure has been applied only to children in grades 2-6, and has been considered inappropriate for children in grade 1. Not unexpectedly, this measure of achievement varies greatly by grade level (see Chapter I). Most of those who are identified as low achievers by this definition tend to be concentrated

in grades 5 and 6. These grades, however, have somewhat lower Title I selection rates than the lower grades.

The alternative definitions of achievement used in this study are based on the percentile distribution of the combined reading and math scores on the CTBS of all children in grades 1-6. Three different cutoff points along the percentile distribution are used to separate low achievers from regular achievers. These include the bottom 25 percent (4.9 million students); the bottom 33 percent (6.5 million students); and the bottom 50 percent (9.9 million students).

Profiles of Alternate Low Achievement Groups

Profiles of those defined as low achievers by various definitions of achievement are presented in Table VI-3. The first column shows the distribution for all children on key demographic variables. Again, one can compare any particular group's contribution to the total population with that group's contribution to the various low-achieving populations. For example, blacks make up 14 percent of the total population, but 28 percent of those who achieve one year or more below grade or who are in the bottom quarter, 26 percent of those in the bottom third, and 22 percent in the bottom half.

Findings of general interest include:

- Target groups of low achievers under the grade-equivalent and the bottom 25 percent definitions (alternative 1 and 2) are very similar. Both definitions include the same percentages of minority students. The low achievers in the bottom 25 percent are just slightly less concentrated in large families and have slightly better educated parents.
- Low achievement by all definitions is concentrated among minority children, but to a lesser extent than is poverty.
- Educationally needy children are found in families of all sizes, but seem to be more concentrated in families of seven or more and are under-represented in families with two or three children.
- Low achievers come from families where parents' education level is typically less than a high school graduate. Only 31 percent of all children come from such families, compared to 44 percent and more for all alternate low-achievement measures.
- Children whose performance is low by each of the alternative definitions of achievement seem to be somewhat concentrated in the South and the West, and are not found quite as often in the Northeast or the Midwest.
- Like poverty, low achievement is more prevalent in large cities and less prevalent in the suburbs.

Children identified as low achievers based on a grade-equivalent score of one year or more below grade level or a percentile score in the bottom quarter exhibit the most significant departure from the demographic characteristics of all children. On the other hand, those in

Table VI-3

Estimated Population Percentages Of Students
For Alternative Definitions Of Low Achievement
By Demographic Groups

Demographic Groups	All Children (%)	Less Achieving Students: Alt. #1 One Year Below Grade Level (%)	Alt. #2 Bottom 25% (%)	Alt. #3 Bottom 33% (%)	Alt. #4 Bottom 50% (%)
Racial/Ethnic Group					
White	77.9	57.7	57.8	60.1	65.9
Black	13.9	28.5	27.7	26.0	22.0
Hispanic	6.2	11.6	12.1	11.5	9.9
Others	2.1	2.2	2.3	2.4	2.1
Language Regularly Spoken in Home					
English	89.1	84.3	83.6	84.0	85.8
Spanish	6.7	12.3	12.7	12.3	10.5
Other Foreign	4.3	3.5	3.6	3.7	3.7
Related Individuals in Household					
3 or less	12.0	10.8	12.4	12.6	12.5
4	29.6	22.1	23.6	24.0	25.0
5	25.9	23.6	23.5	23.7	24.7
6	16.0	17.6	16.8	17.2	16.4
7 or more	16.5	25.9	23.8	22.6	21.4
Father's Education					
Less than High School Graduate	30.7	51.8	50.2	48.7	43.8
High School Graduate/Some College	51.6	42.6	43.5	44.7	48.1
College Graduate	17.7	5.5	6.2	6.7	8.1
Mother's Education					
Less than High School Graduate	32.4	54.4	52.7	50.1	45.7
High School Graduate/Some College	8.0	42.9	43.6	45.9	49.9
College Graduate	9.6	2.6	3.8	3.9	4.4
Geographic Region					
Northeast	19.3	15.5	16.3	16.2	17.0
Mid-Atlantic	12.0	12.8	11.3	11.3	11.6
South	27.1	33.5	35.2	34.5	32.2
Midwest	26.4	19.0	17.3	18.7	21.0
Far West	15.1	19.2	19.9	19.3	18.3
Urbanism					
City Over 200,000	15.3	24.6	25.5	24.1	21.4
City From 50,000-200,000	12.6	11.1	12.2	12.4	12.1
City Under 50,000	30.5	29.2	28.6	28.5	29.1
Suburb	13.5	8.9	9.3	9.4	10.4
Rural	28.1	26.2	24.4	25.6	26.9

the bottom half of the percentile distribution of achievement scores more closely resemble all children.

Combined Alternate Poverty and Low Achievement Measures

Eight definitions of poverty are tested against three definitions of achievement in Table VI-4. The table is organized so that by progressing from top to bottom and from left to right, each cell numbers more of the nation's children as economically and educationally needy. To illustrate this, examine the first major cell – the relationship between the 1976 Orshansky measure of poverty and the distribution of achievement by the bottom quarter. The group of students in the bottom 25 percent who are also poor includes about 1.5 million children (7.7 percent of the total public school population in grades 1-6). Moving to the right along the row, when the achievement is cut off at the 50th percentile with the bottom half identified as low achievers, the size of the group of poor low-achieving students is increased to 2.5 million, or 12.5 percent of the nation's total. Moving down the columns, the changes in targeting brought about by different definitions of poverty can be identified.

CE Selection Patterns

The problem for Title I funding is to identify those children most in need of help and to direct services to them. Funds for those most in need are currently allocated by economic criteria down to the school level. Within schools, students are selected for funded programs by educational criteria based on achievement tests and teachers' judgment. The current allocation formula identifies areas of need according to counts of poor children based on the Orshansky matrix, a portion of children from AFDC families not below the poverty level, and certain institutionalized and foster children who are attending public schools. In the 1974 Education Amendments mandating this study, the criteria for determining educational needs were explicit. Only those whose grade-equivalent achievement scores were one year or more below grade level qualified as educationally disadvantaged.

Taken in combination, these economic and educational variables encompass four subgroups: 1) poor low achievers, 2) non-poor low achievers, 3) poor regular achievers, and 4) non-poor regular achievers. It was the concern of Congress for the manner in which Title I selection patterns cover these four subgroups that prompted this study. Figure VI-1 graphically portrays for each subgroup the extent of selection for Title I and other CE services.

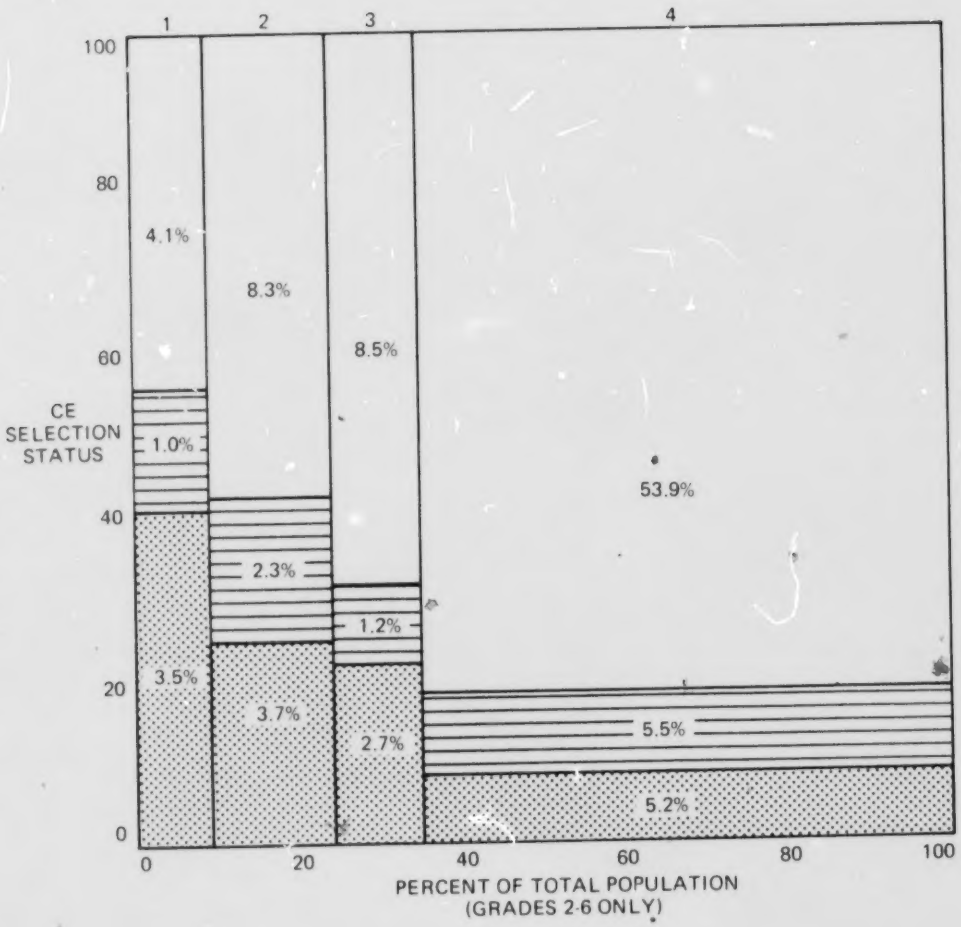
As has been stated previously, the selection scheme suggests that many who are not counted as educationally and/or economically needy (group 4) are selected for Title I and other CE participation (shaded portions of group 4). However, educational criteria for selection to Title I vary greatly by school. Teachers use a combination of available test scores and professional appraisal of student performance to determine whether a student should be selected for CE. Consequently, it is questionable to restrict the analysis of CE selection patterns to the strict educational need criterion stated in the 1974 Education Amendments. The next set of figures reflect actual CE selection patterns for alternate definitions of low achievement with economic status held constant using the Title I allocation criteria for low-income students.

Table VI-4

Estimated Population Percentages And Numbers (In Thousands) Of Students For Alternative Educational Status Measures By Family Economic Status Variables

Alternative Poverty Measures		Alternative Achievement Measures					
		Quarters Distribution		Thirds Distribution		Median Distribution	
		Bottom 25% (%)	Top 75% (%)	Bottom 33% (%)	Top 67% (%)	Bottom 50% (%)	Top 50% (%)
76 Orshansky	Poor	7.7 (1,540)*	9.1 (1,821)	9.8 (1,961)	7.1 (1,420)	12.5 (2,501)	4.2 (840)
	Non-Poor	16.8 (3,361)	66.4 (13,284)	23.0 (4,601)	60.2 (12,044)	36.4 (7,282)	46.9 (9,383)
115% of 76 Orshansky	Poor	9.1 (1,821)	11.5 (2,301)	11.5 (2,301)	9.0 (1,801)	15.1 (3,021)	5.5 (1,100)
	Non-Poor	15.6 (3,121)	63.9 (12,784)	21.2 (4,241)	58.2 (11,643)	34.0 (6,802)	45.5 (9,103)
Title I Allocation Formula	Poor/AFDC	9.3 (1,861)	11.4 (2,281)	11.8 (2,361)	9.0 (1,801)	15.2 (3,041)	5.5 (1,100)
	Non-Poor	15.4 (3,081)	63.8 (12,764)	21.1 (4,221)	58.2 (11,643)	33.8 (6,762)	45.4 (9,083)
125% of 76 Orshansky	Poor	10.0 (2,001)	12.8 (2,561)	12.7 (2,541)	10.1 (2,021)	16.6 (3,321)	6.2 (1,240)
	Non-Poor	14.6 (2,921)	62.5 (12,504)	20.0 (4,001)	57.2 (11,443)	32.3 (6,462)	44.8 (8,963)
Orshansky Update	Poor	10.0 (2,001)	12.9 (2,581)	12.7 (2,541)	10.2 (2,041)	16.6 (3,321)	6.3 (1,260)
	Non-Poor	14.7 (2,941)	62.4 (12,484)	20.0 (4,001)	57.1 (11,423)	32.4 (6,482)	44.7 (8,943)
150% of 76 Orshansky	Poor	11.9 (2,381)	17.2 (3,441)	15.3 (3,061)	13.8 (2,761)	20.5 (4,101)	8.7 (1,741)
	Non-Poor	12.7 (2,541)	58.2 (11,643)	17.4 (3,481)	53.5 (10,703)	28.5 (5,702)	42.2 (8,443)
50% Median Family Income	Poor	12.3 (2,461)	17.9 (3,581)	15.7 (3,141)	14.5 (2,901)	21.1 (4,221)	9.1 (1,821)
	Non-Poor	12.3 (2,461)	57.5 (11,503)	16.9 (3,381)	52.9 (10,583)	27.9 (5,582)	41.9 (8,382)
200% of 76 Orshansky	Poor	15.4 (3,081)	26.9 (5,382)	20.0 (4,001)	22.3 (4,461)	27.5 (5,502)	14.8 (2,961)
	Non-Poor	9.2 (1,841)	48.5 (9,703)	12.7 (2,541)	45.0 (9,003)	21.4 (4,281)	36.3 (7,262)

*Numbers in parentheses are NX1000



ECONOMIC STATUS AND BASIC ACHIEVEMENT

1. POOR/AFDC LOW ACHIEVERS (8.6%)
2. NON-POOR LOW ACHIEVERS (12.4%)
3. POOR/AFDC REGULAR ACHIEVERS (12.2%)
4. NON-POOR REGULAR ACHIEVERS (64.6%)

CE SELECTION STATUS

- NOT SELECTED FOR ANY CE (74.8%)
- SELECTED FOR OTHER CE ONLY (10.0%)
- SELECTED FOR TITLE I (15.1%)

Figure VI-1

Percentages Of Students' Current Compensatory Education Selection Status, Family Economic Status, And Basic Achievement*

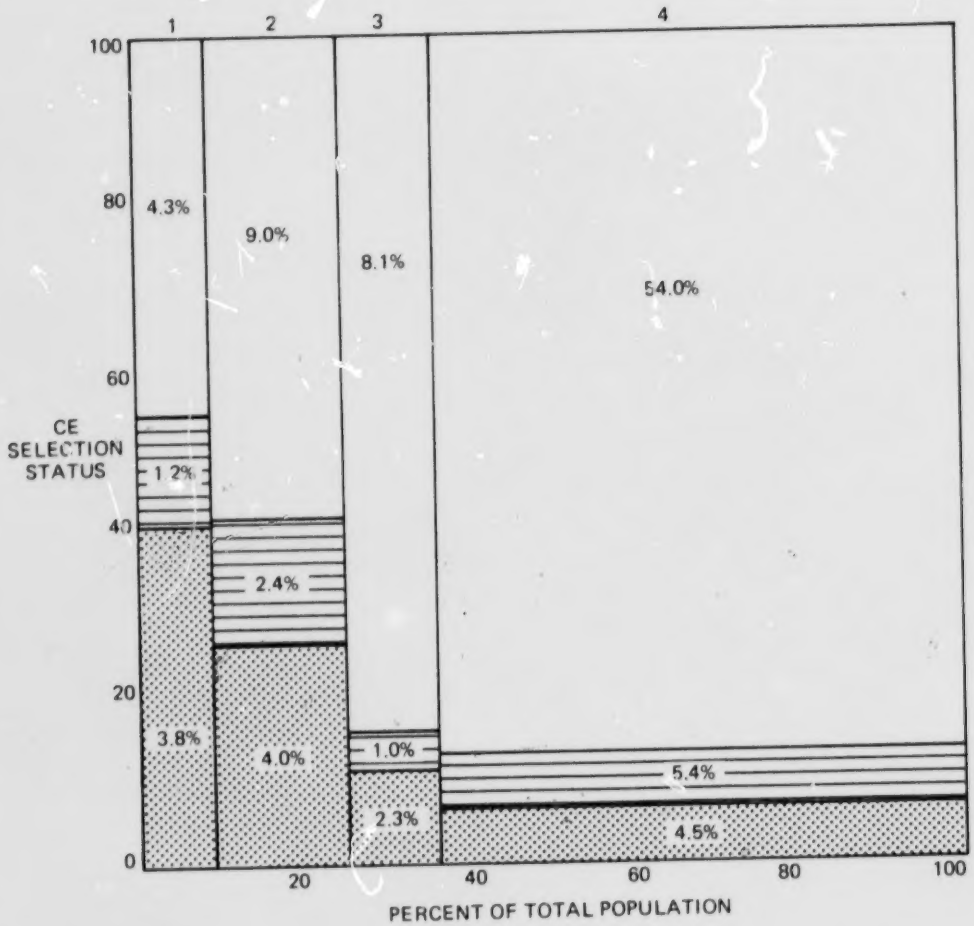
A note of caution to the reader is required at this point. In the ensuing figures, the authors have altered educational and economic cut-off points to find out what thresholds are most closely related to current CE selection rates. This reflects the implicit selection criteria for a cross section of the nation's elementary school children, and is not a reflection of any explicit national standards used to select students for Title I or other CE programs. The activity of altering educational and economic cut-off points on data reported here has no effect on which students are actually selected for CE. The actual effects of changing cut-off points in the regulations that guide student selection and in the laws that govern funds allocation can only be estimated by simulations (not the case here), or known several years after the changes have been made.

Examination of Figure VI-2, where educational disadvantagement includes all in the bottom quarter of the percentile distribution of achievement scores, reveals a CE selection pattern that is highly similar to that in Figure VI-1. Overall, slightly more students are counted as selected and as members of the first two groups in Figure VI-2 than in Figure VI-1. Analysis of data in Table VI-3 indicates that the shift from one year below grade level to the 25th percentile as the criterion for educational disadvantagement does not reveal any basic change in the characteristics of those classified as low-achieving, with the exception of distribution-across grade level. The same shift in the educational criterion for the analysis of CE selection does not indicate any change in the pattern of those covered.

In Figure VI-3, the educational criterion for low achievement includes those in the bottom third of the achievement-score percentile distribution. A change in the selection pattern covering the four subgroups can be seen. More students included in groups 1 and 2 are selected for CE in Figure VI-3 (14.5 percent of the total population) than in Figure VI-1 (10.5 percent of the total population). Fewer students, overall, are counted in groups 3 and 4 and selected for CE (10.1 percent compared to 14.6 percent). This indicated that the strict definition of education disadvantagement specified for this study (achievement one year or more below grade level) excludes from the count of low achievers many educationally deprived children.

Under current Title I guidelines, educationally deprived children are defined as those whose achievement is "below average". In Figure VI-4, the alternate definition of educational need that comes closest to approximating the current criterion for selection is shown. Here low achievement is defined in terms of performance below the national median. It is impossible to pinpoint precisely what is meant within each school by "below average" performance. For purposes of this discussion, those below the 50th percentile are considered low achievers — the closest measure we have to "below average" achievement. The equivalence of these two approaches is not unreasonable.

This median-based educational criterion for need provides the best fit with the observed CE selection pattern. The largest number of students selected for CE (18.7 percent of the total population) are included in the most needy groups (groups 1 and 2) and the smallest number of students selected for CE (5.8%) are not educationally disadvantaged (groups 3 and 4). The Title I selection pattern is even more precise; over 12 percent of all students are in groups 3 and 4 and selected for Title I. Group 3, the poor regular achiever, is extremely small, contributing only 5.5 percent to the total population. This underscores the effect of poverty on achievement.



ECONOMIC AND EDUCATIONAL GROUPS

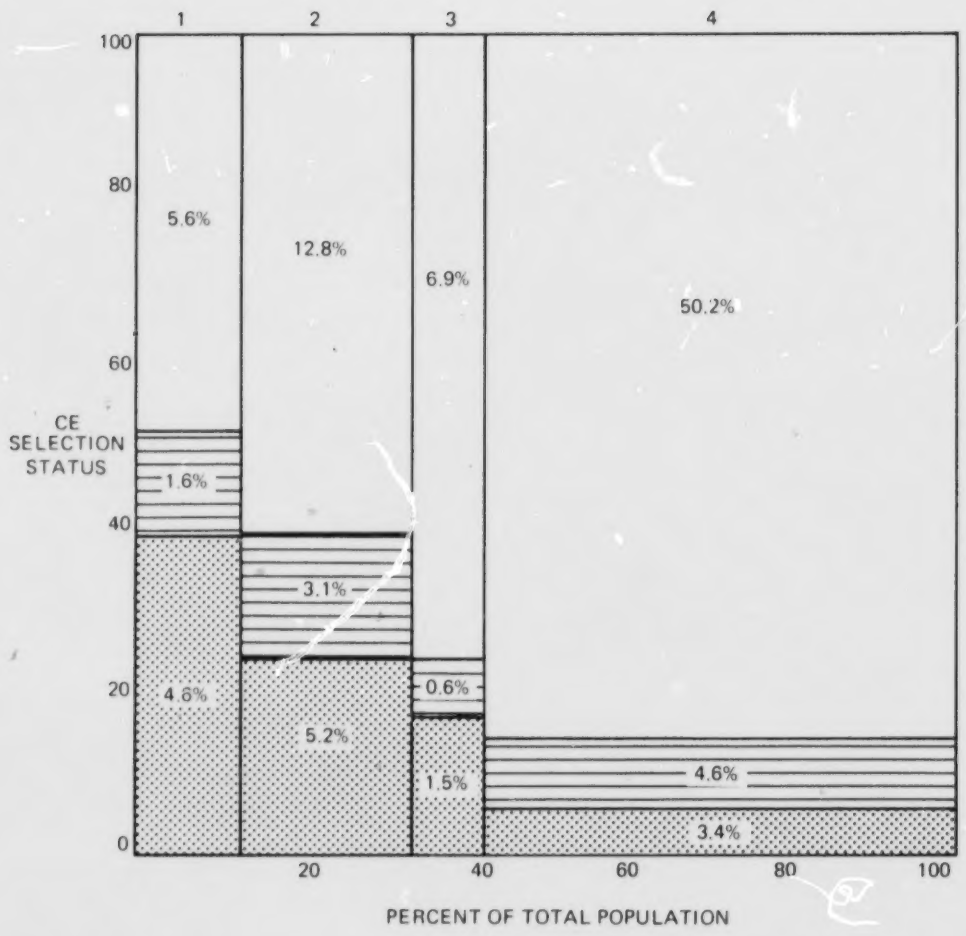
1. POOR/AFDC BOTTOM 25% (9.3%)
2. NON-POOR BOTTOM 25% (15.4%)
3. POOR/AFDC TOP 75% (11.4%)
4. NON-POOR TOP 75% (63.9%)

CE SELECTION STATUS

- NOT SELECTED FOR ANY CE (75.4%)
- SELECTED FOR OTHER CE ONLY (10.0%)
- SELECTED FOR TITLE I (14.6%)

Figure VI-2

Percentages Of Students' Current Compensatory Education Selection Status, Family Economic Status, And Educational Status In Quarters



ECONOMIC AND EDUCATIONAL GROUPS

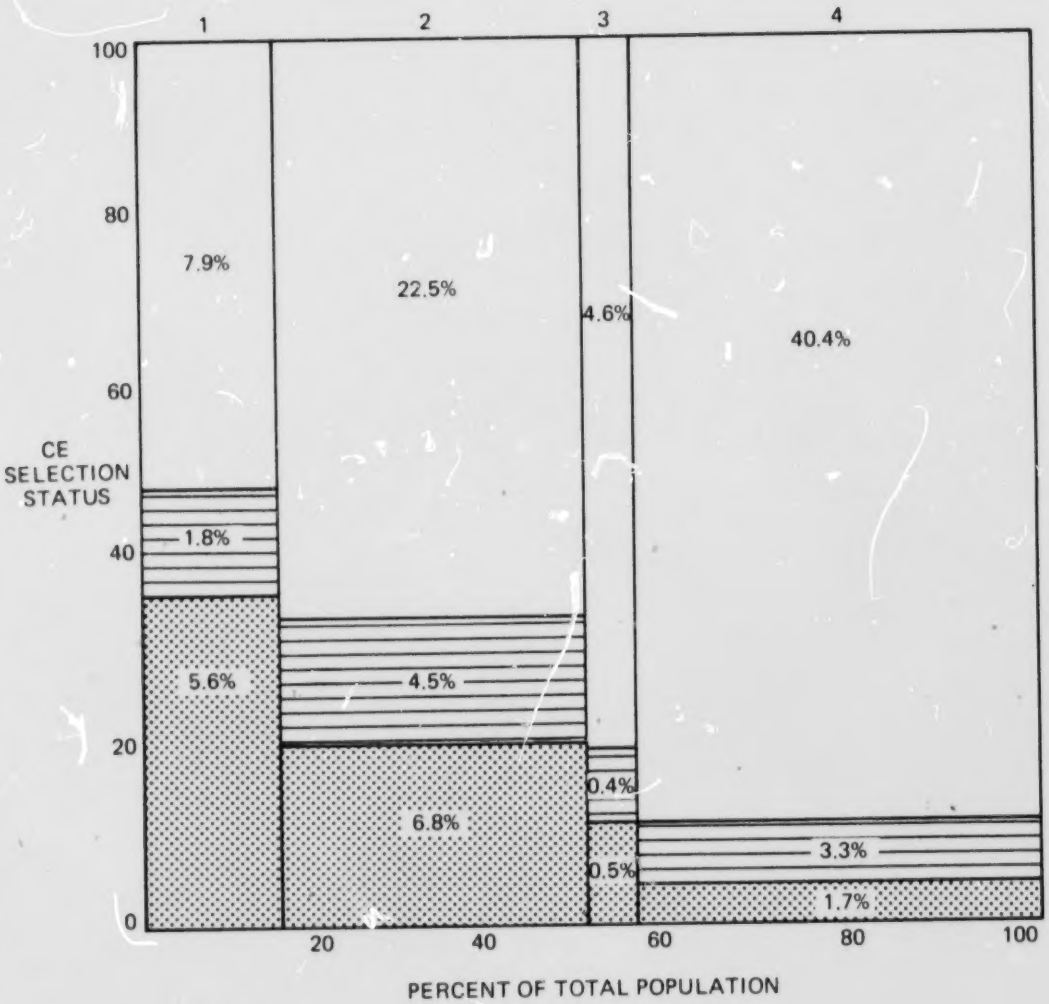
1. POOR/AFDC BOTTOM 33% (11.7%)
2. NON-POOR BOTTOM 33% (21.1%)
3. POOR/AFDC TOP 67% (9.0%)
4. NON-POOR TOP 67% (58.2%)

CE SELECTION STATUS

- NOT SELECTED FOR ANY CE (75.4%)
- SELECTED FOR OTHER CE ONLY (10.0%)
- SELECTED FOR TITLE I (14.6%)

Figure VI-3

Percentages Of Students' Current Compensatory Education Selection Status, Family Economic Status, And Educational Status In Thirds



ECONOMIC AND EDUCATIONAL GROUPS

1. POOR/AFDC BOTTOM 50% (15.3%)
2. NON-POOR BOTTOM 50% (33.8%)
3. POOR/AFDC TOP 50% (5.5%)
4. NON-POOR TOP 50% (45.4%)

CE SELECTION STATUS

- NOT SELECTED FOR ANY CE (75.4%)
- SELECTED FOR OTHER CE ONLY (10.0)
- SELECTED FOR TITLE I (14.6%)

Figure VI-4

Percentages Of Students' Current Compensatory Education Selection Status, Family Economic Status, And Educational Status In Halves

The last figure of interest (Figure VI-5) maintains the criterion for educational need at the national median, but alters the low-income count to include those students who would be counted as poor if the 1976 Orshansky income thresholds were increased by 200 percent. This increases the size of groups 1 and 3 at the expense of groups 2 and 4. More than 12 percent of the student population shifts from group 2 to group 1, indicating that many low achievers defined by the national median come from families whose income is less than 200 percent of the 1976 Orshansky income threshold for poverty. Since many of these students are selected for CE, this shift provides the largest number of students in group 1 who are also selected for CE (12 percent of the total population) of all the combinations of economical and educational disadvantagement discussed. The shift in economic status also provides for the smallest number of students being included in group 4 (non-poor regular achievers) and selected for Title I (1.2 percent of the total population).

Summary

This chapter is intended to answer the question, "What changes in the Title I and other CE selection rates occur when certain alternative measures of economic and educational status are introduced?". The alterations of the educational and economic criteria discussed here expand the number of students that would be selected for CE. This expansion includes those just outside the low-achieving category of one year or more below grade level, the "near-low achievers", and those just outside the poverty cutoff points, the "near-poor". Due to the nature of the relationship between poverty and achievement, altering either the economic or educational criterion automatically includes large numbers of the other group. In other words, as the poverty measure is increased it results in an increase in the number of low achievers included; or as the achievement variable is moved, it likewise creates a similar shift in the number of poor people covered.

The broader the definitions of economic or educational need, the more the needy population resembles the whole universe of elementary school students in grades 1-6. The narrower the definitions, the greater the proportion of minority students, students from large families, students from large urban areas, and students whose parents' education is more limited. These students are at the bottom of the educationally and economically disadvantaged groups.

Current selection practices indicate that many of the "near-poor" and "near-low achievers" are being selected for Title I and other CE services. A shift in the definition of disadvantagement (economical or educational) brings about an increase in the number of disadvantaged children selected. Many of those who might be referred to as being improperly selected for CE under the strict Congressional definition of disadvantagement used in this study are in need, but are classified just outside the group of disadvantaged students by the Congressional definition. Expanding that definition to approximate more closely the CE guidelines reduces considerably the number of non-needy students being served.

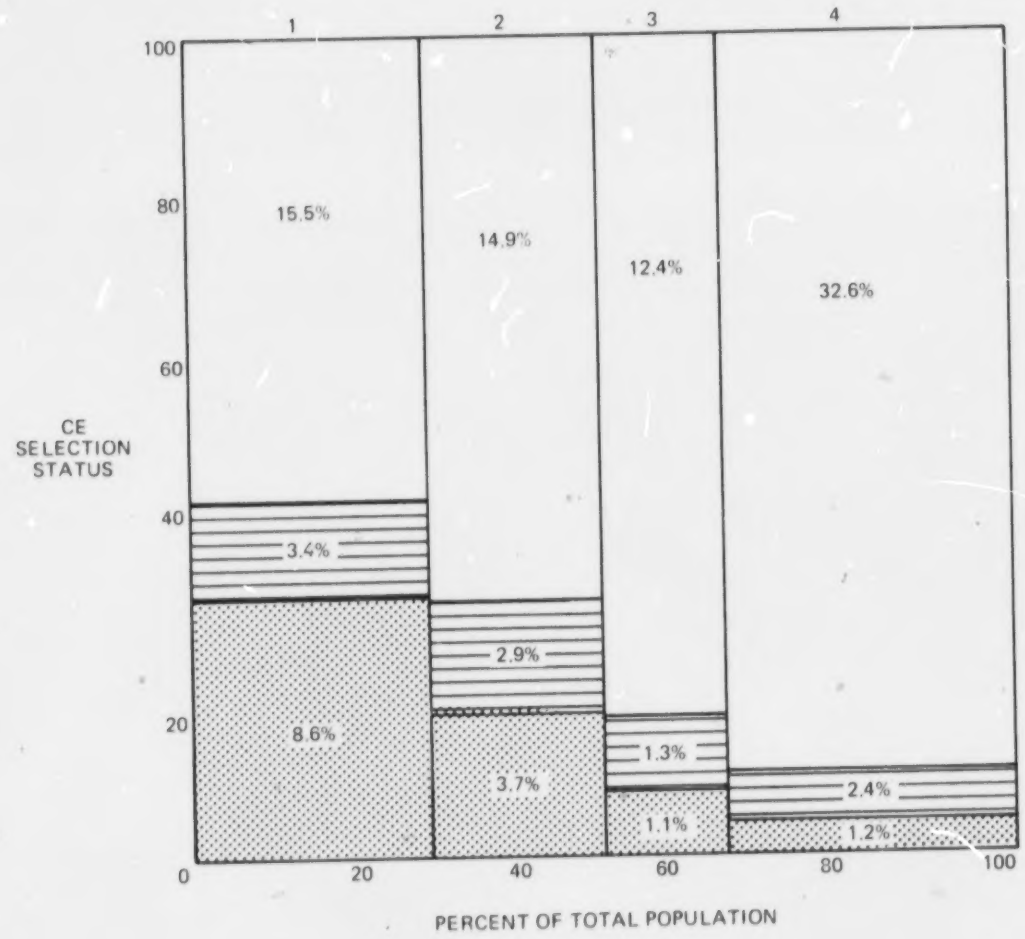


Figure VI-5

Percentages Of Students' Current Compensatory Education Selection Status, Family Economic Status At 200% 1976 Orshansky, And Educational Status In Halves

APPENDIX A. DATA COLLECTION AND MANAGEMENT PROCEDURES

The purpose of this appendix is to set forth the procedures for collecting and managing data for the Participation Study. Detailed information is given on:

- Developing the Household Information Questionnaire (HIQ), the research instrument used for the Participation Study.
- Selecting the student households making up the sample.
- Training a field force of over 800 interviewers to conduct in-person interviews with more than 14,000 parents of the sampled elementary school children.
- Implementing the field work.
- Supervising and monitoring the data collection effort.
- Processing the data to produce variables and statistics pertinent to the policy issues addressed by the Participation Study.

Attention is focused on the organizational and control procedures by which smooth data flow was assured.

Instrumentation: The Household Information Questionnaire

The Household Information Questionnaire (HIQ) was the research instrument developed for the Participation Study. It consisted of 166 items designed to gather data to respond to the policy questions that guided the research. The survey instrument focused on the following measurement areas:

- Family economic status;
- Educational climate in the home;
- Parental satisfaction with their children's schooling;
- Parental involvement with their children's schooling; and
- Descriptive demographic features.

Each topic consisted of a series of items. For instance, household economic status was approached by asking questions to determine the following information:

- Family income;
- Family size;
- Receipt of Aid to Families with Dependent Children (AFDC);

- Age and sex of family head; and
- Family employment history.

Each of these items represents variables currently in use or being considered for use in determining economic status and poverty levels.

The final area covered in the survey was the demographic description of the student's family. Data categories included:

- Sex of chief wage earner and respondent;
- Occupation of male and female heads of house;
- Race or ethnic group;
- Family size;
- Rural, suburban, or urban location of home;
- Age and education of parents; and
- Geographic location.

These data were used to describe the students served and not served by Title I programs.

The questionnaire underwent numerous drafts. It included both items necessary to respond to the policy questions and items required to be comparable to other studies conducted in similar research areas – especially the collection of family income data by the census. All drafts of the questionnaire were prepared by Decima Research and reviewed in depth by the USOE Project Officer and SDC's professional staff.

Areas to be covered in the questionnaire were reviewed by the Policy Advisory Group (made up of parents, teachers, and administrators familiar with the workings of Title I programs) and by the Research Advisory Group of recognized research design and analysis experts. (See page iv for a listing of group members.)

A meeting was also held with representatives of the U.S. Bureau of the Census to become familiar with the "Survey of Income and Education" (SIE), which Census executed in the Spring of 1976. At this meeting it was agreed that items designed to collect income data as part of the Participation Study would be identical to those used in the U.S. Bureau's Survey of Income and Education.

The initial version of the HIQ was submitted for forms clearance review in January, 1976. A revised instrument, based on discussions with the U.S. Bureau of the Census, was submitted in February, 1976. In late March, 1976, clearance was granted for the questionnaire (OMB No. 51-576020) through June 30, 1976. The instrument was then field tested.

The field test was conducted at 12 pretest sites. Field staff thoroughly briefed interviewers concerning the background of the Participation Study and provided them with detailed

instructions for conducting the interviews with parents of elementary school students. Interviewers not only administered the questionnaire, but evaluated it as well. Decima staff observed, firsthand, the interviewing at seven of the pretest sites.

Based upon the performance of the questionnaire, interviewer comments, respondent comments, and observations made by Decima staff, the HIQ was revised. The more sensitive questions relating to in-kind income and financial assets were deleted from the original questionnaire. Other questions were reworded to remove ambiguity. The revised questionnaire was resubmitted for OMB approval. This approval, under the same OMB clearance number assigned for the pretest, was granted in November, 1976. The final instrument is shown in its entirety in Appendix D.

Sample Selection

This section describes the procedures used to identify and select student households for inclusion in the Participation Study. Readers who are interested in a more detailed description of the methodology employed to arrive at the sample procedures and weighting schemes for the Participation Study are referred to SES Technical Report #1, *The sample for the Sustaining Effects Study and Projection of its Characteristics to the National Population*, and to Appendix B of this volume. A stratified two-stage probability sample constituted the basic design for this survey. The sample was chosen at each stage with techniques assuring random selection. Projections from the sample to the universe of elementary school children in grades 1-6 are appropriate.

In the first stage, 243 schools were randomly selected to constitute a representative cross section of elementary schools stratified by geographic region, size of LEA, and poverty status of LEA. Schools from high-poverty LEAs were oversampled. Of the original 243 schools, only one declined to participate in the data-collection activity, leaving a first-stage sample of 242 schools.

Students within each of the 242 schools were selected during the second stage of sampling. With access to the Fall 1976 enrollment lists, a systematic random sampling procedure within each school led to the selection of 15,815 students.

Confidentiality requirements and the requirement for access to student names, addresses, and telephone numbers necessitated the use of a different student identification number than was used throughout the SES Longitudinal Study. The first step in identifying and selecting the student sample at each school was to establish a sampling frame. From complete lists of SDC student identification numbers for each school in the representative sample, the students to be sampled were randomly selected and assigned a new, Decima identification number. Both sets of identification numbers, the SDC number along with its paired Decima number, were then recorded on multi-part Sample Identification Forms.

SDC used its copy of the matched list of student identification numbers for each school to develop a linkage program to connect data on students in the Participation Study with data on the same students from the Longitudinal Study. This linkage was necessary because the data tapes for the HIQ contained no identifying information other than the Decima identification number.

Each local coordinator for schools in the representative sample received two copies of the Sample Identification Forms with the matched SDC and Decima identification numbers for his or her school. Using the SDC number, local coordinators identified the students selected for the Participation Study and completed the forms providing student names, the names of parents or guardians, addresses, and telephone numbers. They then separated the two copies of the form, keeping one for their own files. They removed the SDC identification numbers from the other copy and sent that copy with the necessary information and only the Decima number to Decima for processing.

Hence, SDC held identification numbers that would permit the linkage of data sets, but (consistent with study policy regarding confidentiality) had no personal information such as student names, addresses, or telephone numbers. The schools had both sets of identification numbers and the personal identification information, but no data from SDC (except CTBS scores) or the HIQ. Finally, Decima Research had its own identification number for each student and his or her name, parents' name, address, and telephone number, but no means to link this with SDC data. Once all interviews were completed, validated, and processed, all personal information (such as names, addresses, and telephone numbers) was destroyed, leaving Decima with only its own identification number and data items for transmittal to SDC.

When Decima received its copy of the Sample Identification Forms from the schools, it processed them to identify siblings that fell into the sample. In order to minimize the burden on the respondents, it was decided to conduct only one interview for each household. Hence, siblings were identified and then through a random process one was indicated for inclusion in the sample while the others were temporarily withdrawn. Since much of the information collected would be of the household type, siblings who were not included in the sample were later reintroduced, receiving the same responses on household items (family income, size of family, etc.) as their siblings who had remained in the sample.

Address labels were prepared using the information provided, and two letters were sent to each household selected in the sample. First, letters from the principal of the school were sent to introduce the study to the parents and ask them to cooperate when contacted for an interview. Next, a letter from Decima Research introduced the firm, spelled out confidentiality procedures, and informed the parents that they would shortly be contacted by a field representative for an interview.

Of 15,815 households contacted, interviewers were able to complete interviews with 14,158 parents; 692 individuals refused to take part in the study, and another 965 could not be interviewed due to difficulty in making contact. Overall, the sample responded favorably to the study, with a sample recovery rate of 89.596. For an analysis of non-respondents, see Appendix C.

Field Staff Training

Ten regional field coordinators were selected to work with Decima's national field director to collect the data. Regional coordinators were selected for their longtime working relationship with Decima Research, their proven capability in similar data-collection activities, and

their general knowledge, familiarity, and experience with the regions in which they would be working. Each coordinator received two days of intensive training for the project, including careful instructions on the instrument and the interviewing aides to be used in the field and on the training and debriefing programs they would be conducting to train local supervisors and interviewers for the project.

Once trained, the regional coordinators worked to ensure that proper training, commitment, and understanding of the project existed at the local interviewer level. Generally, Decima professional staff would first visit a training site and conduct a one-day training session with the local supervisor and interviewers. Then, several days later, after the trainees had had a chance to familiarize themselves with the instrument and to complete a practice interview, the regional coordinator would make a follow-up visit to review the work assignment with each individual. At this time the coordinator would clarify instructions and ascertain that all interviewers and local supervisors were prepared to carry out their assignments correctly. If necessary, the regional coordinator would dismiss poor interviewers and recruit and train new ones.

During training, interviewers received a 100-page instructional manual that:

- Introduced them to the background and general objectives of the Participation Study;
- Emphasized the need to maintain confidentiality;
- Discussed the materials to be used during the interviewing process;
- Outlined their time schedule for completing the assigned tasks;
- Gave reporting instructions;
- Reviewed special cases relating to the sample;
- Explained how to complete the call record face sheet of the questionnaire;
- Provided helpful hints on how to obtain certain items requested in the questionnaire; and
- Presented question-by-question instructions for each item in the interview schedule.

Using two different mock interviews with answers that covered all possible response patterns in the questionnaire, a practice interview session was held. Each interviewer had the opportunity to ask several pages of questions from the HIQ. Problems and errors were discussed as they were encountered to provide immediate feedback, correction, and clarification.

At the completion of the initial training session, each participating interviewer was evaluated by the Decima representative and the local supervisor. Those satisfactorily completing the training were assigned a practice interview to be completed within two or three days. Upon completion of that assignment, regional coordinators debriefed all interviewers individually and reviewed their complete questionnaires. At this point all interviewers were reevaluated and full assignments were made to those receiving high ratings. Those with low ratings were either dismissed from the project or retrained, at the discretion of the regional coordinator.

Data Collection and Management

Once the sample had been selected, the field force trained, and potential respondents informed of their selection, the actual data-collection began. Interviewing began in the middle of January, 1977, and continued into May. Eighty percent of all interviews were completed by the first week in March, and 95 percent were finished by the end of that month. Sites where special problems such as severe weather or particular sample identification restrictions occurred were generally delayed until the early spring. However, all interviews were completed, field edited and validated, returned, and verified by the end of May, 1977.

Constant telephone contact with local supervisors was maintained during this time. Weekly reports were taken over the phone and the status and whereabouts of each interview updated. When problems arose that could not be handled with verbal telephone instructions, regional coordinators or Decima staff traveled directly to the problem site to assess and correct the situation.

As interviews were completed throughout the country they were edited and validated in the field by local supervisors. They were then mailed directly to Decima, where they received a second editing and at least 10 percent were validated once again to ensure that the interview had actually taken place. This double-checking assured that all the proper steps were taken during the progress of the interview and that finished instruments were complete and accurate. Any instrument containing unsatisfactory work or missing information on key economic variables was reassigned to Decima's field staff. Telephone contacts were then made with respondents to clarify and/or complete items on the questionnaire essential to the principal policy questions of the study.

A coding team was carefully trained to process all household questionnaires. Detailed instructions were given indicating study objectives, coding procedures, and provisions for the management of missing data. Using these instructions as guidelines, an extensive question-by-question briefing was held. Coders were trained to edit for response validity, completion, and adherence to skip patterns. Two practice interviews were coded, reviewed, and graded. Potential problem areas were pointed out.

To code open-ended questions, response categories were developed by recording on cards at least 25 percent of all responses. Each geographic region for the study contributed its proportional share of responses to incorporate in the coding categories any variance that might occur between regions.

Upon completion of this process the responses were sorted into homogeneous categories. These categories, along with several examples of actual verbatim responses, were listed and delivered to the Principal Investigator for comment and approval. Once approved, the codes were typed and distributed to the coders working on the open-ended questions so that all responses could be numerically categorized. As this classification proceeded, any answers falling into an "Other" category were set aside. These responses were then placed into categories by the coding supervisor or Principal Investigator, or put into newly created categories if sufficient similar "Other" responses were found.

While the preparation, approval, and coding of the open-ended codes progressed, the additional items in each questionnaire were prepared for keypunch. Closed-ended questions were clearly marked for the keypunch operators, and any additional codes were identified. Coders received specific parts of the questionnaire to code, and these parts were coded exclusively by the persons assigned. Each coder's work was checked daily at the beginning of the process, and a 10-percent coding consistency check was maintained as the work continued.

Data Processing

As each instrument was coded, it was checked out to keypunch. Operators keyed over 14,000 questionnaires, using eight cards per instrument. Specific items were verified for each record. These included the Decima identification number, the interview disposition, questionnaire card number, income amounts, family size, farm/nonfarm residence, and demographic variables. These items were selected for verification because of the need to maintain accuracy on all identification numbers and income information, which is an integral part of the Participation Study's final analysis.

Once keypunching terminated, raw data sets were constructed. These data sets were run through computer-sequence and editing checks to verify skip pattern logic, note out-of-range codes, and identify the duplication of record identification numbers. Incorrect or suspicious data were checked directly by reference to the source instrument and corrected or confirmed.

As sets of data were cleaned they were merged into several composite data files to check for valid interview identification. Once these smaller merges were accomplished, all valid interview data were merged to one file. Identification numbers and dispositions of incomplete or lost interviews were then added to this file, so that all numbers were accounted for.

The large data file was then run through a final check of data ranges and skip patterns. The sibling link-up was added to this clean file. Through an identification number link-up system, siblings originally withheld from interview assignment were paired with the brother or sister for whom an interview had been conducted. Specific household-related data were duplicated for the sibling who was not the student of concern during the interview. This duplicate record was then inserted into the file. The final file with all cases was fine-tuned and delivered to SDC.

SDC analysis staff members read the tape and identified several minor problems in the record positions and item values. These were adjusted, and a final, complete tape was submitted to SDC for delivery to USOE. The tape contains unweighted individual response items for all cases selected for the sample.

From this master file, scales and derived variables were created to respond to the policy questions of Technical Reports 2, 3, and 4. These variables were placed on a general analysis file, which was also delivered to SDC. Along with this tape went requests for certain variables from the SDC data base. These variables were added to the Decima tape and returned to Decima for analysis. The general tape with only respondent data items on it was then used to create the technical reports indicated above.

APPENDIX B. SAMPLE SELECTION AND POPULATION ESTIMATES

The sample for the Participation Study was chosen to provide descriptive information on a cross section of the nation's elementary school children, and the analytical power necessary to test a variety of hypotheses concerning the sustained effects of CE among students of different backgrounds. In addition, it was important to minimize the reporting burden upon any one locality, school, or household. Each of these requirements affected certain characteristics of the sampling plan; none was allowed to dominate the overall design.

It is useful to describe each sample requirement and its contribution to the design philosophy before turning to the selection of the sample or the weighting needed for computing estimates projectable to the nation's public elementary school population (grades 1-6).

For descriptive power, the ideal is simple representativeness. Stratification of sampling elements along a number of relevant dimensions ensures representation of variations for every key characteristic. This technique, coupled with random selection of schools and households in proportion to their relative contribution to each stratum, produces a self-weighting sample. It was not possible, however, to achieve this ideal of a self-weighting national sample for the Participation Study. Rather, strata were disproportionately sampled in deference to the analytic needs of the SES. Hence, weights are applied to the data (increasing the variances of estimates) to produce national projections of key variables. This national profile generated from weighted data is of value in measuring the nature, extent, and distribution of compensatory education efforts. These estimates are the central objective of this survey. Such projections require both random sampling and precise knowledge of any disproportionalities introduced by the sample design and stratification plan.

Analytic power, on the other hand, is best supported by an emphasis on the differences of each group or variable to be studied. With wide ranges for both the critical variables and the groups of concern, and with respondents spread throughout these ranges, the analyst can more accurately estimate the effects of a variety of variables and situations on educational progress. Adequate representation of different subgroups became a second critical demand upon the sample.

In addition, the sample design must not impose unduly upon any locality, school or household. No community can be expected to undergo interviewing of a very large share of its households without generating enough discussion to jeopardize the integrity of the interviews. No school should be assigned a quota of interviews so large as to overburden its staff with sampling tasks. No respondent should, because of having numerous children in the sample, be burdened by a very long interview with its ensuing increase in respondent fatigue and resistance. By enhancing cooperation, these rules serve the interests of the study, as well as those of respondents and schools.

Since the above requirements inevitably conflict, the sampling plan finally adopted is a compromise that attempts to reconcile the differences. A complete description of the development of the sampling plan may be found in Technical Report #1: *The Sample for the Sustaining Effects Study and Projection of Its Characteristics to the National Population* (R. Hoepfner, J. Wellisch, H. Zagorski, 1977).

Basic Sample Design

The basic sampling plan of the participation survey may be characterized as a two-stage stratified probability design, where elementary schools are the primary sampling units (PSU's) and students are the secondary sampling units (SSU's).

The first stage of the design consists of a sample of public elementary schools selected from 84 primary strata created by a three-way classification scheme as follows:

- Ten geographic strata (the 10 Federal Districts);
- Three local education agency (LEA) size strata; and
- Three LEA poverty strata.

This three-way classification establishes ninety primary strata. However, six of these ninety cells contained no schools. Consequently, the sample schools were selected independently from the remaining 84 primary cells.

As the second stage, students to be interviewed were selected at random independently from each of the sampled schools.

Sample Size

Selection of schools for the SES, and hence for the Participation Study, was the responsibility of SDC. In effect, the schools finally chosen for the Participation Study represent a sample of a sample. Based upon considerations of cost, administrative feasibility, and desired precision of estimates, three schools for each of the 84 primary strata, or 252 schools, were originally invited to participate in the SES. Not all of the chosen schools were willing to cooperate, and substitutions were made. Even during the execution of the Participation Study, one school decided to discontinue its involvement. The number of randomly selected schools remaining in the first stage is 242. For a complete description of this stage of sampling, the reader is referred to Technical Report #1.

Based upon considerations of cost, administrative feasibility, and desired precision of estimates, it was decided that an initial sample size of about 18,000 students would be optimum for the Participation Survey. This figure of 18,000 allowed for selecting approximately 20 percent more than the target number of completed interviews (15,000).

To enhance further the structuring of an efficient design, guidelines were established as a basis for allocating the student sample to the schools in the primary strata. These guidelines distributed the student sample in such a way that each student in the national universe had, as nearly as possible, an equal probability of selection.

The guidelines used were as follows:

- As many interviews as possible should be allocated to the primary strata containing the largest proportions of the nation's elementary school children.
- At least 75 interviews should be completed within each stratum, and at least 15 interviews within each school.
- No more than 200 students, or one-third of the student enrollment (whichever is less), should be selected for interview at any school, unless necessary to complete 15 interviews.

Sample Selection and Recovery

The schools included at the first stage of sampling were selected with equal probability through the use of a table of random numbers. (See Chapter IV of Technical Report No. 1.)

The students were selected independently for each of the 242 schools, using systematic random procedures. The first step in the selection process involved securing the student numbers for all students in each of the 242 schools. These numbers had been assigned by SDC, based upon expected enrollment figures for Fall 1976. To determine how many student numbers would be randomly selected for each school, the initial 18,000 student slots were allocated to primary strata and schools following the aforementioned guidelines. The third step in the selection process established a sampling ratio for each school that would yield the appropriate number of students. To assure no breach of confidentiality, student numbers selected for the sample were returned to the local coordinators at each school. Names and addresses of the students corresponding to the selected numbers were filled in from the most current enrollment lists.

A total of 18,000 students numbers were initially selected. Only 17,368 names corresponding to selected student numbers were returned to Decima, since some students left the school districts shortly after enrollment. The sample list of 17,368 names was screened for the presence of two or more children (siblings) randomly selected from the same family. A total of 1,552 siblings were temporarily purged from the sample, leaving 15,816 families for interview. Interviews were completed with 14,159 families, for a recovery rate of 89.5 percent. For the analyses of family economic and student achievement data, siblings from families where interviews were completed were added to the sample by duplicating family-related data, to yield 15,579 cases.

This selection procedure may be regarded as random, and is so treated in the variance calculations. Exhibit I provides a summary of the universe and *recovered* sample sizes at both stages of sampling. Exhibit II presents the definitions of the various estimators of totals and means and their variances, as well as the required inflation factors.

Application of the formula for estimating the two-stage sampling variance for means produces standard errors of estimate for five key variables in the following table. These variables include:

Mean family income

Percentage of poverty families

Percentage of poverty/AFDC families

Percentage selected for Title I

Percentage of women with high school education or less

Table B-1. Estimate Of Standard Errors For Five Key Variables

	Mean/Percent	Standard Error
Family Income	$15,671	$838
Poverty Families	16.9%	1.6%
Poverty/AFDC Families	20.9%	1.7%
Title I Selectees	14.7%	1.5%
Women with high school education or less	73.3%	3.6%

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
011	149	3	101	23	15
			102	95	32
			103	90	33
012	514	3	104	90	17
			105	150	47
			106	48	17
013	1,722	3	107	582	206
			108	409	138
			109	299	114
022	283	3	110	33	18
			111	149	34
			112	113	30
023	1,369	3	113	353	121
			114	380	133
			354	589	229
031	101	2	116	477	35
			118	220	23
032	194	3	119	406	34
			120	436	34
			121	118	18
033	113	3	122	274	21
			123	492	24
			124	375	27
111*	33	1	125	522	76
112	354	3	126	514	36
			127	348	15
			128	775	51

*Only one school was selected from this primary strata. For purposes of variance, analysis stratum 111 was combined with stratum 112, which it most closely resembles.

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
113	1,884	3	129	224	78
			130	832	219
			131	435	135
121	36	3	132	608	35
			133	375	21
			134	464	22
122	255	3	135	273	33
			136	273	33
			137	269	33
123	1,517	3	138	433	148
			139	371	136
			140	377	144
131	603	3	141	629	193
			142	406	105
			143	705	161
132	213	3	144	380	38
			145	169	19
			146	285	36
133**	307	1	355	530	166
211	364	3	150	148	17
			151	505	41
			152	122	18
212	580	3	153	428	38
			154	193	33
			155	211	32
213	1,085	3	156	337	117
			157	299	90
			158	149	47

**Only one school was selected from this primary strata. For purposes of variance, analysis stratum 133 was combined with stratum 132, which it most closely resembles.

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
221	673	3	159	330	69
			160	372	80
			161	93	22
222	823	3	162	168	59
			163	248	86
			164	38	16
223	1,172	3	165	459	169
			166	402	140
			167	345	113
231	398	3	168	795	66
			169	589	43
			170	457	42
232	574	2	171	619	149
			172	381	112
233	941	3	174	352	133
			175	1268	190
			176	349	115
311	2,038	3	177	215	75
			178	334	108
			179	299	105
312	438	3	180	69	16
			181	418	76
			182	342	63
313	53	2	183	327	26
			184	534	47
321	2,205	3	185	175	63
			186	112	39
			187	373	113

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
322	1,136	3	188	210	71
			189	316	110
			190	319	95
323	196	3	191	690	30
			192	546	25
			193	359	19
331	1,095	2	353	465	133
			196	359	113
332	1,524	3	197	482	142
			198	569	170
			199	774	218
333	423	3	200	553	64
			201	447	59
			202	649	74
411	436	3	203	167	19
			204	223	22
			205	305	38
412	1,724	3	206	330	113
			207	318	117
			208	127	45
413	5,122	5	209	100	35
			210	111	38
			211	392	115
			212	149	59
			213	147	52
421	38	3	214	78	17
			215	343	34
			216	223	24

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
422	263	3	217	154	24
			218	335	60
			219	391	35
423	3,379	3	220	294	109
			221	234	82
			222	350	114
431	32	3	223	99	16
			224	553	42
			225	302	24
432	1,679	3	226	774	183
			227	425	107
			228	151	37
433	1,025	3	229	269	94
			230	341	124
			231	541	187
511	2,171	3	232	303	92
			233	129	43
			234	462	165
512	812	3	235	491	119
			236	59	18
			237	222	54
513	409	3	238	134	14
			239	476	50
			240	365	40
521	920	3	241	160	60
			242	185	66
			243	317	98
522	372	3	244	502	46
			245	459	39
			246	262	26

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
523	334	3	247	724	57
			248	308	26
			249	623	54
531	504	3	250	478	90
			251	240	45
			252	392	63
532	1,133	3	253	181	59
			254	517	169
			255	607	186
533	288	3	256	500	50
			257	640	61
			258	426	37
611	488	3	259	168	33
			260	135	33
			261	50	18
612	1,183	3	262	142	55
			263	361	101
			264	39	18
613	1,352	3	265	85	34
			266	379	147
			267	194	69
621	28	3	268	323	24
			269	209	20
			270	370	36
622	69	3	271	457	37
			272	355	28
			273	241	14
623	632	3	274	415	98
			275	221	53
			276	158	37

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
631	140	3	277	309	15
			278	493	28
			279	415	28
632	240	3	280	210	42
			281	76	17
			282	141	28
633	365	3	283	605	69
			284	199	24
			285	315	39
711	622	3	286	151	29
			287	65	17
			288	177	38
712	917	3	289	151	29
			290	278	50
			291	43	14
713	667	3	292	61	18
			293	297	32
			294	391	42
722	140	3	295	348	29
			296	111	15
			297	457	42
723	374	3	298	315	43
			299	164	29
			300	375	54
732	195	3	301	157	13
			302	455	33
			303	524	33
733	340	3	304	681	65
			305	162	18
			306	351	38

Exhibit I

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
811	435	3	307	400	46
			308	162	22
			309	371	41
812	650	3	310	133	14
			311	239	34
			312	736	84
813	833	3	313	43	18
			314	130	43
			315	166	66
821	109	3	316	149	23
			317	296	21
			318	198	33
822	628	2	319	463	96
			320	612	134
823	1,388	3	322	344	124
			352	473	141
			324	697	221
831	116	2	326	791	41
			327	448	26
832	1,111	2	328	633	195
			330	452	139
833	903	3	331	253	86
			332	459	132
			333	287	94
911	96	3	334	163	45
			335	54	13
			336	65	17
912	625	3	337	14	12
			338	61	18
			339	244	68

Exhibit 1

Universe And Recovered Sample Sizes

Primary Stratum Code	Number of Schools in Universe (N)	Number of Schools in Sample (n)	School Code	Number of Students in School (M)	Number of Students in Sample (m)
913	737	2	340	58	19
			341	136	51
922	100	3	343	347	30
			344	225	16
			345	405	33
923	579	3	346	431	77
			347	344	63
			348	341	54
933	506	3	349	514	74
			350	415	48
			351	260	35
Totals	62,534	242			

EXHIBIT II

MODEL OF THE BASIC DESIGN

A. NOTATION

1. *Subscripts*

h = Cell number where $h = 1, \ldots, 84$

i = Primary sampling unit (PSU = Schools) number within cell $i = 1, \ldots, n_h$

j = Secondary sampling unit (SSU = Students) number within PSU $j = 1, \ldots, m_{hi}$

2. *Design Components*

	UNIVERSE	SAMPLE
Number of Cells	84	84
Number of PSU's/Cell	N_h	n_h
Total PSU's	$N = \sum_{h=1}^{84} N_h$	$n = \sum_{h=1}^{84} n_h$
Number of SSU's/Cell	$M_h = \sum_{i=1}^{N_h} M_{hi}$	$m_h = \sum_{i=1}^{n_h} m_{hi}$
Total SSU's	$M = \sum_{h=1}^{84} \sum_{i=1}^{N_h} M_{hi}$	$m = \sum_{h=1}^{84} \sum_{i=1}^{n_h} m_{hi}$

B. ESTIMATOR OF TOTALS

Let X_{hij} = value of a given characteristic reported by the j^{th} student in the sample at the i^{th} school of the h^{th} cell.

$$X_{hi.} = \frac{m_{hi}}{j=1} X_{hij}$$ = total of a given characteristic reported by the students in the sample at the i^{th} school of the h^{th} cell.

$$\hat{Y}_{hi.} = \sum_{m_{hi}}^{M_{hi}} X_{hi.}$$ = estimated total of a given characteristic in the universe of the i^{th} school in the h^{th} cell.

$$\hat{Y}_{h..} = \frac{N_h}{n_h} \sum_{i=1}^{n_h} \hat{Y}_{hi.}$$ = estimated total of a given characteristic in the universe of the h^{th} cell.

$$\hat{Y}_{...} = \sum_{h=1}^{84} \hat{Y}_{h..}$$ = estimated total of a given characteristic in the universe.

C. ESTIMATORS OF MEANS WHEN THE TOTAL STUDENT ENROLLMENT PER CELL IS NOT KNOWN (RATIOS ESTIMATORS)

$$\hat{\bar{Y}}_h = \frac{\frac{N_h}{n_h}\sum_{i=1}^{n_h}\hat{Y}_{hi}}{\frac{N_h}{n_h}\sum_{i=1}^{n_h}M_{hi}} = \frac{\sum_{i=1}^{n_h}\hat{Y}_{hi}}{\sum_{i=1}^{m_1}M_{hi}} =$$

estimated mean of a given characteristic of all students in the h^{th} cell.

$$\hat{\bar{\bar{Y}}} = \frac{\sum_{h=1}^{84}\frac{N_h}{n_h}\sum_{i=1}^{n_h}\hat{Y}_{hi}}{\sum_{h=1}^{84}\frac{N_h}{n_h}\sum_{i=1}^{n_h}M_{hi}} = \frac{\hat{Y}}{\hat{M}} =$$

estimated mean of a given characteristic of all students in the universe.

Where: $\sum_{i=1}^{n_h} M_{hi}$ = total student enrollment in the n_h sampled schools of the h^{th} cell.

$\hat{M}_h = \frac{N_h}{n_h}\sum_{i=1}^{n_h} M_{hi}$ = estimated student enrollment in all schools of the h^{th} cell.

$\hat{M} = \sum_{h=1}^{84}\hat{M}_h$ = estimated total student enrollment in all schools of the 84 cells.

D. VARIANCE ESTIMATOR FOR TOTALS

$$\hat{\sigma}^{2}_{\hat{Y}_h} = \frac{N_h}{n_h}(N_h - n_h)\sum_{i=1}^{n_h}\frac{(\hat{Y}_{hi} - \hat{\bar{Y}}_h)^2}{n_h - 1}$$

$$+ \frac{N_h}{n_h}\sum_{i=1}^{n_h}\frac{M_{hi}}{m_{hi}}(M_{hi} - m_{hi})\sum_{j=1}^{m_{hi}}\frac{(X_{hij} - \bar{X}_{hi})^2}{m_{hi} - 1}$$

$$\sigma^{2}_{\hat{Y}} = \sum_{h=1}^{84}\sigma^{2}_{\hat{Y}_h}$$

E. VARIANCE ESTIMATOR IS ON MEANS

$$\text{Let } \hat{R}_h = \frac{\frac{N_h}{n_h} \sum_{i=1}^{n_h} \frac{M_{hi}}{m_{hi}} \sum_{j=1}^{m_{hi}} X_{hij}}{\frac{N}{n_h} \sum_{i=1}^{n_h} M_{hi}}$$

$$\text{or } \hat{R}_h = \frac{\sum_{i=1}^{n_h} \frac{M_{hi}}{m_{hi}} \sum_{j=1}^{M_{hi}} X_{hij}}{\sum_{i-1}^{n_h} M_{hi}}$$

$$\hat{\sigma}^2_{\hat{R}_h} = \frac{1}{\left(\frac{N_h}{n_h} \sum_{i=1}^{n_h} M_{hi}\right)^2} = \left\{ \frac{N_h}{n_h} (N_h - n_h) \left[\sum_{i-1}^{n_{hi}} \frac{(\hat{Y}_{hi} - \bar{Y}_n)^2}{n_{h-1}} \right.\right.$$

$$- \hat{2}\, R_h \sum_{i=1}^{n_h} \frac{(Y_{hi} - \bar{Y}_h)(M_{hi} - \bar{M}_h)}{n_h - 1}$$

$$\left. + \hat{R}_h{}^2 \sum_{i=1}^{n_h} \frac{(M_{hi} - \bar{M}_h)^2}{n_h - 1} \right]$$

$$\left. + \frac{N_h}{n_h} \sum_{i=1}^{n_h} \frac{M_{hi}}{m_{hi}} (M_{hi} - m_{hi}) \sum_{j=1}^{m_{hi}} \frac{(X_{hij} - \bar{X}_{hi})^2}{m_{hi} - 1} \right\}$$

APPENDIX C. ANALYSIS OF NON-RESPONDENTS

The purpose of this brief analysis is to determine whether there are any critical differences between those responding, and those not responding, to the Household Information Questionnaire (HIQ) used in the Participation Study. It is possible to make this type of analysis by using some of the family-child background data collected by System Development Corporation. These data can provide some measure of the differences between the responding and non-responding segments of the sample.

First, the number of non-respondents is small; only 1,657 out of 15,816 families sampled did not respond to the HIQ. This provides a non-response rate of 10.5 percent. Only 4.4 percent of the total sample (692 families) refused outright to respond to the HIQ. This low refusal rate, coupled with the low non-response rate, reduces the concern of any serious biases in the sample characteristics.

The larger subgroup of non-respondents is the 965 families (6.1 percent of the total sample) who were unable to be contacted by the interviewers. Some were inaccessible because they had moved. For others, the address provided by the school proved to be invalid. Also, interviewers had communication problems with some members of the sample who only spoke foreign languages for which there were no interpreters or bilingual interviewers available.

Five variables were used to make the comparisons between the responding and non-responding subgroups: sex of student, student's age and grade, geographic region of the country, and student racial/ethnic group membership. No significant, systematic differences in the proportions of respondents to non-respondents were found. The general conclusion from the analysis is that the sample does not contain systematic biases due to non-response patterns.

APPENDIX D. THE HOUSEHOLD INFORMATION QUESTIONNAIRE

Hello, I'm _____ of Decima Research. I am here as part of a national study supported by your child's school and the United States Office of Education. You should have received a letter from the school principal and my company introducing me. As you may recall, the study will be used to determine the effects of school programs on the way students learn as well as the types of educational services that are received by students with differing educational and economic backgrounds. While your participation is voluntary, your opinions and knowledge about the programs your child is receiving at school and his/her educational and economic background are essential if the results of the study are to be comprehensive, accurate, and timely. Let me assure you that everything you say will be confidential. No one, including the school or any government agency, will be able to see the information you provide. The answers you give will be combined with those of many others. (EXPLAIN CONFIDENTIALITY PROCEDURES TO RESPONDENT IF REQUESTED)

Now, as we discuss the questions please remember that usually we will be talking about your son/daughter, (child's first name) _____ who is in the (1st, 2nd, 3rd, 4th, 5th or 6th) _____ grade at (name of school) _____.

1. How long have you lived in this neighborhood?

LESS THAN ONE YEAR 1
ONE YEAR TO LESS THAN THREE YEARS 2
THREE YEARS TO LESS THAN FIVE YEARS 3
FIVE YEARS TO LESS THAN TEN YEARS 4
TEN YEARS OR MORE 5

2. Now, let's talk about the school (child's name) _____ is attending. What is the one thing that you like most about (child's name) _____ school? (PROBE)

_____

_____

_____

3. And if you could make one change (name of school) _____, what would it be?

_____

_____

_____

4. Overall, would you rate the quality of education (name of child) _____ is getting at (name of school) _____ as excellent, good, fair, or poor?

EXCELLENT 1
GOOD 2
FAIR 3
POOR 4

During the year, most schools arrange for parents to have personal conferences or meetings with their child's teacher or principal for various reasons.

5. How many personal conferences or meetings has someone from your family had with (child's name)_____ teacher or principal this year?

NONE (ASK Q. 6) 1
ONE (SKIP TO Q. 9) 2
TWO (SKIP TO Q. 9) 3
THREE (SKIP TO Q. 9) 4
FOUR OR MORE (SKIP TO Q. 9) 5

IF "NONE" IN Q. 5, ASK:

6. Do you expect to have a personal conference or meeting with his/her teacher or principal this year?

YES (SKIP TO Q. 9) 1
NO (ASK Q. 7) 2
DON'T KNOW (SKIP TO Q. 13) 3

IF "NO" IN Q. 6, ASK:

7. Why not? (PROBE)

_____

_____

_____

8. Do you think a personal conference or meeting with your child's teacher or principal would be helpful, or not?

YES, HELPFUL (SKIP TO Q. 13) 1
NO, NOT HELPFUL (SKIP TO Q. 13) 2

IF "ONE" THROUGH "FOUR OR MORE" IN Q. 5, OR "YES" IN Q. 6, ASK:

9. Who goes to these personal conferences most of the time?

CHILD'S MOTHER 1
CHILD'S FATHER 2
BOTH PARENTS 3
OTHER HOUSEHOLD MEMBERS 4

10. In your opinion, what are the resons for these personal conferences?

_____

_____

11. (SHOW CARD #1) How are these personal conferences *usually* planned: Does the teacher or principal call you to set up a meeting, does your child bring a note home from the teacher or principal asking you to meet with them, do you go to the teacher or principal first and ask to meet with them, or do you sign up at an open house for a conference with (child's name) _____ teacher or principal?

TEACHER/PRINCIPAL CALLS 1
NOTE SENT HOME 2
PARENT ASKS FOR MEETING 3
SIGN UP AT OPEN HOUSE 4
OTHER _____ .. 5
(SPECIFY)

12. Do you feel that these personal conferences are helpful, or not?

YES, HELPFUL 1
NO, NOT HELPFUL 2

13. Some schools have special classes to help children learn subjects with which they have problems. How about (child's name) _____ school? Does (name of school) _____ have any special classes to help children learn these subjects?

YES, HAS SPECIAL CLASS (ASK Q. 14 & 15) 1
NO, DOES NOT HAVE SPECIAL CLASSES (SKIP TO Q. 17) 2
DON'T KNOW (SKIP TO Q. 17) 3

IF "YES" IN Q. 13, ASK:

14. Can you tell me the names of any of these special classes? (IF HANDICAPPED OR MENTAL RETARDATION PROGRAM IS MENTIONED RECORD BUT PROBE FOR OTHER CLASSES. IF RESPONDENT IS UNABLE TO GIVE ACTUAL NAMES, ASK THEM TO PROVIDE A DESCRIPTION OF CLASS: FOR INSTANCE, WHAT KIND OF CLASS IS IT? CAN YOU DESCRIBE WHAT SORTS OF THINGS ARE TAUGHT?)

_____

_____

15. Does your child attend or take part in any of these special classes at (name of school) _____?

YES (ASK Q. 16) 1
NO (SKIP TO Q. 17) 2

IF "YES" IN Q. 15, ASK:

16. Which of these special classes does (name of child) _____ attend? (PROBE – ACCEPT MORE THAN ONE RESPONSE)

_____

_____

17. INTERVIEWER OBSERVATION: Did Respondent receive any help from any children to answer any of Questions 13-16?

YES, DID RECEIVE HELP 1
NO, DID NOT RECEIVE HELP 2

18. Have you ever heard of Title I (ONE) of the Elementary and Secondary Education Act passed by Congress a few years ago?

YES, HAVE HEARD OF IT (ASK Q. 19) 1
NO, HAVE NOT HEARD OF IT (SKIP TO Q. 20) 2

IF "YES" IN Q. 18, ASK:

19. What does Title I mean to you? That is, what do you think is the purpose of Title I in the education act?

_____

_____

_____

20. One of the purposes of Title I (ONE) of the Elementary and Secondary Education act is to provide schools with money to set up special classes and programs. These classes and programs help children learn subjects they have problems with like reading or math or other school subjects.

As far as you know, does (child's name) _____ school have special classes funded by Title I?

YES (ASK Q. 21) 1
NO (SKIP TO Q. 24) 2
DON'T KNOW (SKIP TO Q. 24) 3

IF "YES" IN Q. 20, ASK:

21. What are the names of these special classes or what subjects are taught in them? (PROBE – ACCEPT MORE THAN ONE RESPONSE)

_____

_____

_____

22. Is your child now in a Title I class?

YES (ASK Q. 23) 1
NO (SKIP TO Q. 24) 2

IF "YES" IN Q. 22, ASK:

23. In your opinion, has this class been extremely helpful, very helpful, somewhat helpful, or not so helpful to (child's name) _____?

EXTREMELY HELPFUL 1
VERY HELPFUL 2
SOMEWHAT HELPFUL 3
NOT SO HELPFUL 4

24. INTERVIEWER OBSERVATION: Did Respondent receive any help from any children to answer any of Questions 20-23?

YES, DID RECEIVE HELP 1
NO, DID NOT RECEIVE HELP 2

Now let's talk about some other things concerning (child's name) _____ school.

25. Does any member of the family currently help out, assist, or work at (name of school) _____?

YES (ASK Q. 26-29) 1
NO (SKIP TO Q. 30) 2

IF "YES" IN Q. 25, ASK:

26. Which member of the family is it?

CHILD'S MOTHER 1
CHILD'S FATHER 2
CHILD'S BROTHER OR SISTER 3
SOME OTHER FAMILY MEMBER _____ (SPECIFY) 4

27. Is he/she paid for the work or is the work done for free as a volunteer?

PAID FOR WORK 1
NOT PAID FOR WORK 2

28. What type of job does he/she have?

TEACHERS AIDE 1
PARENTS OR COMMUNITY COORDINATOR 2
SECRETARY 3
CLERK/TYPIST 4
CAFETERIA WORK 5
LIBRARY AIDE 6
MEMBER OF TITLE I BOARD 7
OTHER _____ (SPECIFY) 8

29. Was any special training or preparation for the job given by the school?

YES 1
NO 2

30. Most schools have a Parent-Teacher Association (PTA) or Parent-Teacher Organization (PTO) that works for the good of the whole school.

Does the school (child's name) _____ attends have a Parent-Teacher Association (PTA) or a Parent-Teacher Organization (PTO)? (PROBE IF NECESSARY)

HAS PTA 1
HAS PTO 2
HAS PARENT ORGANIZATION, BUT NOT PTA OR PTO (SPECIFY) _____ . . . 3
HAS PARENT ORGANIZATION, DO NOT KNOW NAME 4
NO PTA, PTO, OR OTHER PARENT ORGANIZATION 5
DON'T KNOW 6

In addition, some schools also have parent advisory organizations that make suggestions and in other ways help plan specific programs and special classes the school provides.

31. Other than the PTA or the PTO, does (child's name) ____ school have an *advisory* group of parents that help plan special classes or programs such as the ones we talked about earlier?

YES (ASK Q. 32-36) 1
NO (SKIP TO Q. 37) 2
DON'T KNOW (SKIP TO Q. 37) 3

IF "YES" IN Q. 31, ASK:

32. What is the name of this advisory group or organization of parents? (PROBE, ACCEPT MORE THAN ONE RESPONSE)

_____

_____

_____

33. And, what is the purpose of this parent advisory organization? (PROBE, IF MORE THAN ONE RESPONSE GIVEN IN Q. 32, ASK PURPOSE OF EACH GROUP AND RECORD)

_____

_____

_____

34. How successful do you believe the parent advisory organization is in accomplishing its purpose: very successful, somewhat successful, or not very successful?

VERY SUCCESSFUL 1
SOMEWHAT SUCCESSFUL 2
NOT VERY SUCCESSFUL 3
DON'T KNOW 4

35. (SHOW CARD #2) Are you or are any of your neighbors or friends members of the parent advisory organization?

RESPONDENT A MEMBER 1
FRIENDS OR NEIGHBORS ARE MEMBERS 2
NEITHER 3
DON'T KNOW 4

36. (SHOW CARD #3) Have you ever voted for someone or known about an election for parents to be elected as a member of the parent advisory organization?

HAVE VOTED 1
HAVE KNOWN ABOUT AN ELECTION 2
NOT VOTED AND NOT KNOWN ABOUT ELECTION 3

37. Many schools have extra activities, such as school plays or science fairs, which are in addition to regular classes. Do any members of the family go to see these extra school activities or programs put on by the children at school?

YES 1
NO 2

38. Has (child's name) _____ taken part in any of these extra school activities or programs since school started?

YES 1
NO 2

Sometimes children bring home school work or projects to do on their own at home.

39. (SHOW CARD #4) During the school year, how often does (child's name) _____ *usually* bring home school work or projects to work on: nearly every day, two or three times a week, or just once a week, or occasionally such as once a month or so?

NEARLY EVERY DAY – FOUR OR FIVE TIMES A WEEK 1
TWO OR THREE TIMES A WEEK 2
ONCE A WEEK 3
OCCASIONALLY SUCH AS ONCE A MONTH OR SO 4
DOES WORK AT SCHOOL/ DOES NOT HAVE HOME WORK ASSIGNMENTS (SKIP TO Q. 42) 5

IF RESPONSES 1, 2 OR 3 IN Q. 39, ASK:

40. Is there a place in the home where he/she usually goes to work on school assignments?

YES (ASK Q. 41) 1
NO (SKIP TO Q. 42) 2

IF "YES" IN Q. 40, ASK:

41. Where is that? (ACCEPT MORE THAN ONE RESPONSE)

_____

_____

_____

42. In the last month, how often has someone in the family helped your child with his/her school work: very often, somewhat often, not very often, or never?

VERY OFTEN 1
SOMEWHAT OFTEN 2
NOT VERY OFTEN 3
NEVER 4
NO SCHOOL WORK IN LAST MONTH FOR FAMILY MEMBER TO HELP WITH 5

43. (SHOW CARD #5, ACCEPT ONLY ONE RESPONSE) When your child needs help with his/her Math and Science who *usually* helps him/her?

NO ONE 1
CHILD'S FATHER 2
CHILD'S MOTHER 3
CHILD'S BROTHER 4
CHILD'S SISTER 5
OTHER _____ 6
(SPECIFY)

44. (SHOW CARD #5, ACCEPT ONLY ONE RESPONSE) And, when your child needs help with his/her Reading, Spelling and English who *usually* helps him/her?

NO ONE 1
CHILD'S FATHER 2
CHILD'S MOTHER 3
CHILD'S BROTHER 4
CHILD'S SISTER 5
OTHER _____ 6
(SPECIFY)

45. (SHOW CARD #5, ACCEPT ONLY ONE RESPONSE) Finally, when (child's name) _____ needs help with his/her Social Studies and Geography who *usually* helps him/her?

NO ONE 1
CHILD'S FATHER 2
CHILD'S MOTHER 3
CHILD'S BROTHER 4
CHILD'S SISTER 5
CHILD DOES NOT HAVE THIS SUBJECT 6
OTHER _____ 7
(SPECIFY)

46. (SHOW CARD #6) During an average school week how many times would you say your child discusses things that happen at school with grown-ups in the family?

NEVER 1
ONCE A WEEK 2
TWO OR THREE TIMES A WEEK 3
NEARLY EVERY DAY – FOUR OR FIVE TIMES A WEEK 4

(SHOW CARD #7) Which of these languages are spoken regularly in your home?

47. English

YES 1
NO 2

48. Spanish

YES (ASK Q. 54) 1
NO 2

49. Portuguese

YES (ASK Q. 54) 1
NO 2

50. Chinese

YES (ASK Q. 54) 1
NO 2

51. Japanese

YES (ASK Q. 54) 1
NO 2

52. Italian

YES (ASK Q. 54) 1
NO 2

53. Other (Specify)_____

YES (ASK Q. 54) 1
NO 2

IF "YES" IN Q. 48, 49, 50, 51, 52, OR 53, ASK:

54. What language is used when helping your child with his/her school work?

ENGLISH 1
OTHER LANGUAGE 2

Now let's discuss some things that have to do with reading.

55. (SHOW CARD #8) Approximately how many books are in your home right now that you think would be easy enough for (child's name)_____ to read without help?

0 (SKIP TO Q. 58) 1
1-10 (SKIP TO Q. 58) 2
11-20 (SKIP TO Q. 58) 3
21-30 (SKIP TO Q. 58) 4
31-40 (SKIP TO Q. 58) 5
41-50 (SKIP TO Q. 58) 6
51 AND OVER (SKIP TO Q. 58) 7
CHILD DOES NOT KNOW HOW TO READ (ASK Q. 56) 8

IF "CHILD DOES NOT KNOW HOW TO READ" IN Q. 55, ASK:

56. Do you or does anyone else in the household ever read aloud to (child's name)_____?

YES (ASK Q. 57) 1
NO (SKIP TO Q. 58) 2

IF "YES" IN Q. 56, ASK:

57. (SHOW CARD #9) How frequently do you and/or others in your household read aloud to (child's name)_____?

ONCE A WEEK OR LESS 1
TWO OR THREE TIMES A WEEK 2
NEARLY EVERY DAY — FOUR OR FIVE TIMES A WEEK OR MORE 3

58. (NOTE: USE "LIKE" INSTEAD OF "READ" FOR CHILD WHO DOES NOT KNOW HOW TO READ) What type of books does he/she read/like *most:* story books, school books, or comic books?

STORY BOOKS 1
SCHOOL BOOKS 2
COMIC BOOKS 3
OTHER_____ 4
(SPECIFY)

59. How many books has (child's name) brought home from the school library or public library in the last two weeks?

NONE 1
BETWEEN ONE AND FIVE 2
BETWEEN SIX AND TEN 3
MORE THAN TEN 4
BROUGHT HOME BOOK(S) FROM SOURCE OTHER THAN LIBRARY (SPECIFY)_____ . . . 5

60. Do you subscribe to, regularly buy or receive a newspaper?

YES 1
NO 2

61. Do you subscribe to, regularly buy or receive magazines for reading there at home?

YES 1
NO 2

62. During a normal weekday of the school year, there are several hours when your child is not sleeping, eating, or in school. Of that time, how many hours does (name of child)_____ spend doing homework?

OF *HOURS* DOING HOMEWORK _____ HRS.

63. And how many hours during a normal weekday of the school year does (name of child)_____ spend reading magazines, newspapers, or any kind of book, including comic and school books?

OF *HOURS* READING _____ HRS.

64. And, during a normal weekday of the school year, how many hours does (name of child)_____ spend watching television?

OF *HOURS* WATCHING TELEVISION _____ HRS.

65. How many hours does (name of child)_____ spend doing chores or work around the house during a normal weekday?

OF *HOURS* DOING CHORES AROUND THE HOUSE _____ HRS.

66. And how many hours does (name of child)_____ spend just playing in general, again on a normal weekday during the school year?

OF *HOURS* PLAYING IN GENERAL _____ HRS.

67. Which television programs does your child watch most frequently (any day of the week)? (ACCEPT ALL RESPONSES AND RECORD CATEGORY WHERE KNOWN)

67a. First Mention	67b. Second Mention	67c. Third Mention
_____ (Name of Program)	_____ (Name of Program)	_____ (Name of Program)
Cartoons 1	Cartoons 1	Cartoons 1
Children's Shows 2	Children's Shows 2	Children's Shows 2
Situation Comedy 3	Situation Comedy 3	Situation Comedy 3
Science Fiction 4	Science Fiction 4	Science Fiction 4
Adventure 5	Adventure 5	Adventure 5
Educational 6	Educational 6	Educational 6
Crime & Police Show 7	Crime & Police Show 7	Crime & Police Show 7
Drama 8	Drama 8	Drama 8
Variety Show 9	Variety Show 9	Variety Show 9
Animal Specials 10	Animal Specials 10	Animal Specials 10
Game Shows 11	Game Shows 11	Game Shows 11
News 12	News 12	News 12
Sports 13	Sports 13	Sports 13
Specials 14	Specials 14	Specials 14
Other (Specify) _____ 15	Other (Specify) _____ 15	Other (Specify) _____ 15

67d. Other Mentions (JUST LIST NAME OF PROGRAMS) _____

_____

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68. Generally speaking, does (child's name) _____ watch television with adults, with other children, or alone?

WATCHES TV WITH ADULTS 1
WATCHES TV WITH OTHER CHILDREN 2
WATCHES TV ALONE 3
WATCHES TV WITH ADULTS AND OTHER CHILDREN 4

---

69. (SHOW CARD #10)
Some children talk to others a lot about the television programs they watch. Others don't have much to say about them to anyone. How about (child's name) _____, does he/she frequently talk to you or others about the TV programs he/she watches, sometimes talk to you or others or seldom talk to you or others?

FREQUENTLY TALKS TO YOU/OTHERS 1
SOMETIMES TALKS TO YOU/OTHERS 2
SELDOM TALKS TO YOU/OTHERS 3

---

70. What is the highest grade of school or educational level you expect (child's name) _____ to complete?

- 7th GRADE 1
- 8th GRADE 2
- 9th GRADE 3
- 10th GRADE 4
- 11th GRADE 5
- 12th GRADE (HIGH SCHOOL GRADUATE) 6
- SOME COLLEGE (JR. COLLEGE, AND/OR ONE TO THREE YEARS OF COLLEGE AND/OR A.A. DEGREE) 7
- COLLEGE GRADUATE (B.A. OR B.S. DEGREE) 8
- POST GRADUATE OR PROFESSIONAL SCHOOL (M.S., M.A., Ph.D., DOCTOR, DENTIST, LAWYER, etc) 9

71. Do you expect (child's name) _____ to attend a vocational training school?

- YES 1
- NO 2

72. Does (child's name) _____ always or usually, sometimes, or seldom take enough time to eat breakfast at home?

- ALWAYS/USUALLY HAS BREAKFAST 1
- SOMETIMES HAS BREAKFAST 2
- SELDOM HAS BREAKFAST 3

The following questions are about the education, employment history, and income of your family. These questions and the answers you provide are very important to determine the educational services to be provided different students. Again, I'd like to assure you that neither the school nor any government agency or individual will be able to obtain this information. Your answers will be combined with those of many others. Your individual, specific answers will never be identified with you or your family in any way.

DO NOT INCLUDE FOSTER CHILDREN IN Q. 73-77. FOSTER CHILDREN *SHOULD* BE INCLUDED IN Q. 78a AND 78b.

73. Including yourself, how many members of your family are living in your house? _____ # IN HOUSEHOLD

74. Of these, how many are 5 years old or younger? _____ # IN HOUSEHOLD

75. And, how many are between 6 years old and 13 years old? _____ # IN HOUSEHOLD

76. And, how many are between 14 years old and 17 years old? _____ # IN HOUSEHOLD

77. How many family members in this household, including yourself, are 18 years of age and over?

_____ # IN HOUSEHOLD

(TOTAL OF Q. 74-77 MUST EQUAL NUMBER IN HOUSEHOLD IN Q. 73)

_____ # IN HOUSEHOLD
TOTAL MUST MATCH Q. 73

Q. 78a AND 78b *SHOULD* INCLUDE FOSTER CHILDREN.

78a. How many individuals unrelated to your family are living in your house?

_____ # IN HOUSEHOLD
(IF "NONE," SKIP TO Q. 79)

78b. Finally, how many of these unrelated individuals living in your house are 14 years of age or older?

_____ # IN HOUSEHOLD

79. Now, concerning the man of the house — how old is he (are you)?

17 TO 24 1
25 TO 34 2
35 TO 44 3
45 TO 54 4
55 TO 64 5
65 AND OVER 6
NO MAN OF THE HOUSE (SKIP TO Q. 105) 7

80. What was the last grade of school he(you) completed?

8TH GRADE OR LESS 1
9-11TH GRADE 2
12TH GRADE 3
SOME COLLEGE. 4
COLLEGE GRADUATE 5
POST GRADUATE OR PROFESSIONAL SCHOOL 6

81. What is his(your) occupation? (IF RESPONDENT DOES NOT KNOW, ASK:) What does he(do you) do at work?

_____

82. In 1976 how many weeks did he(you) work either full time or part time not counting work around the house? (INCLUDE PAID VACATION AND PAID SICK LEAVE)

NONE (ASK Q. 83). . . . . A
_____ # OF WKS WORKED
(SKIP TO Q. 85). . . . . B

IF "NONE" IN Q. 82, ASK:

83. Even though he(you) did not work in 1976 did he(you) spend any time trying to find a job?

YES (ASK Q. 84) 1
NO (SKIP TO Q. 89) 2

IF "YES" IN Q. 83, ASK:

84. How many different weeks was he(were you) looking for work or on layoff from a job?

_____ # OF WEEKS LOOKING FOR WORK OR ON LAYOFF FROM A JOB. (SKIP TO Q. 89)

85. In the weeks that the man of the house worked(you worked), how many hours did he(you) usually work per week?

_____ # OF HOURS WORKED PER WEEK

86. For how many employers did he(you) work in 1976? (IF MORE THAN ONE AT THE SAME TIME ONLY COUNT IT AS ONE EMPLOYER.)

ONE. 1
TWO 2
THREE OR MORE 3

IF MAN OF HOUSE WORKED 50-52 WEEKS IN Q. 82 SKIP TO Q. 89

87. You said he(you) worked about (ENTER IN Q. 82 RESPONSE) weeks in 1976. How many of the remaining (52 MINUS ENTRY IN Q. 82) weeks was he(were you) looking for work or on layoff from a job?

_____ # OF WEEKS LOOKING FOR WORK OR ON LAYOFF FROM A JOB.
(IF ZERO WEEKS LOOKING OR ON LAYOFF SKIP TO Q. 89)

88. Were the (ENTER IN Q. 87 RESPONSE) _____ weeks he was (you were) looking for work or on layoff all in one stretch? (IF "NO" ASK:) Was it in two stretches or three or more?

YES – ONE STRETCH 1
NO – TWO STRETCHES 2
NO – THREE OR MORE STRETCHES 3

89. Now, please think back to 1975. Was the man of the house (were you) employed full time for the whole year?

YES, EMPLOYED FULL TIME (SKIP TO Q. 91). 1
NO, NOT EMPLOYED FULL TIME (ASK Q. 90) 2

IF "NO" IN Q. 89, ASK:

90. (SHOW CARD #11)
How long was he(were you) unemployed and/or employed part-time in 1975?

- LESS THAN ONE MONTH . . . 1
- ONE UP TO TWO MONTHS . . 2
- TWO UP TO THREE MONTHS . 3
- THREE UP TO FOUR MONTHS 4
- FOUR UP TO SIX MONTHS . . 5
- MORE THAN SIX MONTHS . . 6

91. Now, please think back to 1974. Was he(were you) employed full time for the whole year?

- YES, EMPLOYED FULL TIME (SKIP TO Q. 93) 1
- NO, NOT EMPLOYED FULL TIME (ASK Q. 92) 2

IF "NO" IN Q. 91, ASK:

92. (SHOW CARD #12)
How long was he (were you) unemployed and/or employed part-time in 1974?

- LESS THAN ONE MONTH . . . 1
- ONE UP TO TWO MONTHS . . 2
- TWO UP TO THREE MONTHS . 3
- THREE UP TO FOUR MONTHS 4
- FOUR UP TO SIX MONTHS . . 5
- MORE THAN SIX MONTHS . . 6

Q. 93-104 *INTERVIEWER INSTRUCTIONS QUESTIONS 93 THRU 104:*

COMPLETE INCOME RECORD SHEET FOR MAN OF THE HOUSEHOLD. ASK EACH INCOME SOURCE, INDICATE RECEIVED OR NOT RECEIVED AND FILL IN AMOUNT RECEIVED.
**IF THE MAN OF THE HOUSEHOLD INDICATES THAT HE LOST MONEY ON ANY OF THE FOLLOWING QUESTIONS 94, 95, OR 103, MARK THE APPROPRIATE CATEGORY AND FILL IN THE AMOUNT LOST.

INCOME RECORD SHEET
MAN OF THE HOUSEHOLD

Now, thinking about the money that the man of the house (you) made last year (1976), please look at these income categories (SHOW SAMPLE INCOME RECORD CARD) and tell me if he (you) received any money from them; and, if so, how much he (you) received.

	INCOME CATEGORY	RECEIVED MONEY	AMOUNT RECEIVED
93.	Wages or salary?	YES .....1 NO 2	$ _____ (BEFORE DEDUCTIONS)
94.	Nonfarm business, partnership or professional practice?	YES .....1 NO .....2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
95.	Own farm?	YES .....1 NO .....2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
96.	U.S. Government — Social Security (GREEN COLORED CHECKS) or Railroad Retirement Checks?	YES .....1 NO 2	$ _____
97.	Supplemental Security Income checks from the Federal Government (GOLD COLORED CHECKS), state or local governments?	YES .....1 NO 2	$ _____
98.	Public assistance or welfare from the state or local welfare office? (IF YES, ASK:)	YES .....1 NO 2	$ _____
99.	Was it Aid to Families with Dependent Children (AFDC) or other assistance?	AFDC .....1 OTHER ASST .....2 BOTH 3	
100.	Veteran's payments (EXCLUDE MILITARY RETIREMENT), unemployment compensation, or workers' compensation?	YES .....1 NO 2	$ _____
101.	Interest on savings accounts, bonds, etc.	YES .....1 NO 2	$ _____
102.	Private pensions, annuities, military, retirement, other federal, state or local government employee pensions?	YES .....1 NO 2	$ _____
103.	Dividends, rental income, royalties, estates or trusts?	YES .....1 NO .....2 LOST MONEY 3	$ _____
104.	Alimony, child support, other regular contributions from persons not living in the household or anything else?	YES .....1 NO 2	$ _____

105. Now, concerning the woman of the house — how old is she (are you)?

17 TO 24 1
25 TO 34 2
35 TO 44 3
45 TO 54 4
55 TO 64 5
65 AND OVER 6
NO WOMAN OF THE HOUSE (SKIP TO Q. 131) 7
(SEE INTERVIEWER INSTRUCTIONS PAGE 22, FOR QUESTIONS 131 THRU 142 AND 143 THRU 154)

106. What was the last grade of school she (you) completed?

8TH GRADE OR LESS 1
9-11TH GRADE 2
12TH GRADE 3
SOME COLLEGE 4
COLLEGE GRADUATE 5
POST GRADUATE OR PROFESSIONAL SCHOOL 6

107. What is her (your) occupation? (IF RESPONDENT DOES NOT KNOW, ASK:) What does she (do you) do at work?

_____

108. In 1976 how many weeks did she (you) work either full time or part time not counting work around the house? (INCLUDE PAID VACATION AND PAID SICK LEAVE)

NONE (ASK Q. 109) . . . . . A
_____ # OF WKS WORKED (SKIP TO Q. 111) . . . . . B

IF "NONE" IN Q. 108, ASK:

109. Even though she (you) did not work in 1976, did she (you) spend any time trying to find a job?

YES (ASK Q. 110) 1
NO (SKIP TO Q. 115) 2

IF "YES" IN Q. 109, ASK:

110. How many different weeks was she (were you) looking for work or on layoff from a job?

_____ # OF WEEKS LOOKING FOR WORK OR ON LAYOFF FROM A JOB. (SKIP TO Q. 115)

111. In the weeks that the woman of the house worked (you worked), how many hours did she (you) usually work per week?

_____ # OF HOURS WORKED PER WEEK

112. For how many employers did she (you work in 1976? (IF MORE THAN ONE AT THE SAME TIME ONLY COUNT IT AS ONE EMPLOYER.)

ONE 1
TWO 2
THREE OR MORE 3

IF WOMAN OF HOUSE WORKED 50-52 WEEKS IN Q. 108 SKIP TO Q. 115

113. You said she (you) worked about (ENTER IN Q. 108 RESPONSE) _____ weeks in 1976. How many of the remaining (52 MINUS ENTRY IN Q. 108) weeks was she (were you) looking for work or on layoff from a job?

_____ # OF WEEKS LOOKING FOR WORK OR ON LAYOFF FROM A JOB.
(IF ZERO WEEKS LOOKING OR ON LAYOFF SKIP TO Q. 115)

114. Were the (ENTER IN Q. 113 RESPONSE) _____ weeks she was (you were) looking for work or on layoff all in one stretch? (IF "NO' ASK:) Was it in two stretches or three or more?

YES – ONE STRETCH 1
NO – TWO STRETCHES 2
NO – THREE OR MORE STRETCHES 3

115. Now, please think back to 1975. Was the woman of the house (were you) employed full time for the whole year?

YES, EMPLOYED FULL TIME (SKIP TO Q. 117) 1
NO, NOT EMPLOYED FULL TIME (ASK Q. 116) 2

IF "NO" IN Q. 115, ASK:

116. (SHOW CARD #13) How long was she (were you) unemployed and/or employed part-time in 1975?

LESS THAN ONE MONTH 1
ONE UP TO TWO MONTHS 2
TWO UP TO THREE MONTHS 3
THREE UP TO FOUR MONTHS 4
FOUR UP TO SIX MONTHS 5
MORE THAN SIX MONTHS 6

117. Now, please think back to 1974. Was she (were you) employed full time for the whole year?

YES, EMPLOYED FULL TIME (SKIP TO Q. 119) 1
NO, NOT EMPLOYED FULL TIME (ASK Q. 118) 2

IF "NO" IN Q. 117, ASK:

118. (SHOW CARD #14) How long was she (were you) unemployed and/or employed part-time in 1974?

LESS THAN ONE MONTH 1
ONE UP TO TWO MONTHS 2
TWO UP TO THREE MONTHS 3
THREE UP TO FOUR MONTHS 4
FOUR UP TO SIX MONTHS 5
MORE THAN SIX MONTHS 6

Q. 119-130	*INTERVIEWER INSTRUCTIONS QUESTIONS 119 THRU 130:* COMPLETE INCOME RECORD SHEET FOR WOMAN OF THE HOUSEHOLD. ASK EACH INCOME SOURCE, INDICATE RECEIVED OR NOT RECEIVED AND FILL IN AMOUNT RECEIVED. **IF THE WOMAN OF THE HOUSEHOLD INDICATES THAT SHE LOST MONEY ON ANY OF THE FOLLOWING QUESTIONS 120, 121, OR 129, MARK THE APPROPRIATE CATEGORY AND FILL IN THE AMOUNT LOST.
Q. 131-142	*INTERVIEWER INSTRUCTIONS QUESTIONS 131 THRU 142:* IF THERE ARE ANY OTHER FAMILY MEMBERS 14 YEARS AND OVER OTHER THAN THE MAN AND/OR WOMAN OF THE HOUSE (SEE QUESTIONS 76 & 77), COMPLETE INCOME RECORD SHEET FOR OTHER FAMILY MEMBERS. ASK EACH INCOME SOURCE, INDICATE RECEIVED OR NOT RECEIVED AND FILL IN AMOUNT RECEIVED. **IF OTHER FAMILY MEMBERS LOST MONEY ON ANY OF THE FOLLOWING QUESTIONS 132, 133, OR 141, MARK THE APPROPRIATE CATEGORY AND FILL IN THE AMOUNT LOST.
Q. 143-154	*INTERVIEWER INSTRUCTIONS QUESTIONS 143 THRU 154:* IF QUESTION 78b HAS ONE OR MORE PERSONS INDICATED, COMPLETE INCOME RECORD SHEET FOR NON-RELATED INDIVIDUALS. ASK EACH INCOME SOURCE, INDICATE RECEIVED OR NOT RECEIVED AND FILL IN AMOUNT RECEIVED. **IF NON-RELATED INDIVIDUALS LOST MONEY ON ANY OF THE FOLLOWING QUESTIONS 144, 145, OR 153, MARK THE APPROPRIATE CATEGORY AND FILL IN THE AMOUNT LOST.

INCOME RECORD SHEET
WOMAN OF THE HOUSEHOLD

Now, thinking about the money that the woman of the house (you) made last year (1976), please look at these income categories (SHOW SAMPLE INCOME RECORD CARD) and tell me if she (you) received any money from them; and, if so, how much she (you) received.

	INCOME CATEGORY	RECEIVED MONEY	AMOUNT RECEIVED
119.	Wages or salary?	YES . . . . . 1 NO 2	$ _____ (BEFORE DEDUCTIONS)
120.	Nonfarm business, partnership or professional practice?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
121.	Own farm?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
122.	U.S. Government – Social Security (GREEN COLORED CHECKS) or Railroad Retirement Checks?	YES . . . . . 1 NO 2	$ _____
123.	Supplemental Security Income checks from the Federal Government (GOLD COLORED CHECKS), state or local governments?	YES . . . . . 1 NO 2	$ _____
124.	Public assistance or welfare from the state or local welfare office? (IF YES, ASK:)	YES . . . . . 1 NO 2	$ _____
125.	Was it Aid to Families with Dependent Children (AFDC) or other assistance?	AFDC . . . . . 1 OTHER ASST . . . . . 2 BOTH 3	
126.	Veteran's payments (EXCLUDE MILITARY RETIREMENT), unemployment compensation, or workers' compensation?	YES . . . . . 1 NO 2	$ _____
127.	Interest on savings accounts, bonds, etc.	YES . . . . . 1 NO 2	$ _____
128.	Private pensions, annuities, military, retirement, other federal, state or local government employee pensions?	YES . . . . . 1 NO 2	$ _____
129.	Dividends, rental income, royalties, estates or trusts?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____
130.	Alimony, child support, other regular contributions from persons not living in the household or anything else?	YES . . . . . 1 NO 2	$ _____

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INCOME RECORD SHEET
OTHER FAMILY MEMBERS

Now, thinking about the money that all other family members 14 years of age and older living in the house made last year (1976), please look at these income categories (SHOW SAMPLE INCOME RECORD CARD) and tell me if they received any money from them; and, if so, how much they received.

	INCOME CATEGORY	RECEIVED MONEY	AMOUNT RECEIVED
131.	Wages or salary?	YES . . . . . 1 NO 2	$ _____ (BEFORE DEDUCTIONS)
132.	Nonfarm business, partnership or professional practice?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
133.	Own farm?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
134.	U.S. Government — Social Security (GREEN COLORED CHECKS) or Railroad Retirement Checks?	YES . . . . . 1 NO 2	$ _____
135.	Supplemental Security Income checks from the Federal Government (GOLD COLORED CHECKS), state or local governments?	YES . . . . . 1 NO 2	$ _____
136.	Public assistance or welfare from the state or local welfare office? (IF YES, ASK:)	YES 1	$ _____
137.	Was it Aid to Families with Dependent Children (AFDC) or other assistance?	AFDC . . . . . 1 OTHER ASST . . . . . 2 BOTH 3	
138.	Veteran's payments (EXCLUDE MILITARY RETIREMENT), unemployment compensation, or workers' compensation?	YES . . . . . 1 NO 2	$ _____
139.	Interest on savings accounts, bonds, etc.	YES . . . . . 1 NO 2	$ _____
140.	Private pensions, annuities, military, retirement, other federal, state or local government employee pensions?	YES . . . . . 1 NO 2	$ _____
141.	Dividends, rental income, royalties, estates or trusts?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____
142.	Alimony, child support, other regular contributions from persons not living in the household or anything else?	YES . . . . . 1 NO 2	$ _____

INCOME RECORD SHEET
NON-RELATED INDIVIDUALS

Now, thinking about the money that all non-related individuals 14 years of age and older living in the house made last year (1976), please look at these income categories (SHOW SAMPLE INCOME RECORD CARD) and tell me if they received any money from them; and, if so, how much they received.

	INCOME CATEGORY	RECEIVED MONEY	AMOUNT RECEIVED
143.	Wages or salary?	YES . . . . . 1 NO 2	$ _____ (BEFORE DEDUCTIONS)
144.	Nonfarm business, partnership or professional practice?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
145.	Own farm?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____ (AFTER EXPENSES)
146.	U.S. Government — Social Security (GREEN COLORED CHECKS) or Railroad Retirement Checks?	YES . . . . . 1 NO 2	$ _____
147.	Supplemental Security Income checks from the Federal Government (GOLD COLORED CHECKS), state or local governments?	YES . . . . . 1 NO 2	$ _____
148.	Public assistance or welfare from the state or local welfare office? (IF YES, ASK:)	YES . . . . . 1 NO 2	$ _____
149.	Was it Aid to Families with Dependent Children (AFDC) or other assistance?	AFDC . . . . . 1 OTHER ASST . . . . . 2 BOTH 3	
150.	Veteran's payments (EXCLUDE MILITARY RETIREMENT), unemployment compensation, or workers' compensation?	Yes . . . . . 1 NO 2	$ _____
151.	Interest on savings accounts, bonds, etc.	YES . . . . . 1 NO 2	$ _____
152.	Private pensions, annuities, military, retirement, other federal, state or local government employee pensions?	YES . . . . . 1 NO 2	$ _____
153.	Dividends, rental income, royalties, estates or trusts?	YES . . . . . 1 NO . . . . . 2 LOST MONEY 3	$ _____
154.	Alimony, child support, other regular contributions from persons not living in the household or anything else?	YES . . . . . 1 NO 2	$ _____

Now I have just a few more questions about your household in general.

155. Now thinking about the same income categories previously mentioned, what was your total family income for *1975* (SHOW CARD #15 AND SAMPLE INCOME RECORD CARD #17). Now remember, we are talking about *1975*, not last year. (THIS LAST SENTENCE DOES NOT APPEAR ON SHOW CARD, SO REMEMBER TO READ IT)

- LESS THAN $1,000/YR 1
- $1,000 TO $1,999/YR 2
- $2,000 TO $2,999/YR 3
- $3,000 TO $3,999/YR 4
- $4,000 TO $4,999/YR 5
- $5,000 TO $5,999/YR 6
- $6,000 TO $6,999/YR 7
- $7,000 TO $7,999/YR 8
- $8,000 TO $8,999/YR 9
- $9,000 TO $9,999/YR 10
- $10,000 TO $10,000/YR 11
- $11,000 TO $11,999/YR 12
- $12,000 TO $12,999/YR 13
- $13,000 TO $13,999/YR 14
- $14,000 TO $14,999/YR 15
- $15,000 TO $16,999/YR 16
- $17,000 TO $18,999/YR 17
- $19,000 TO $20,999/YR 18
- $21,000 TO $22,999/YR 19
- $23,000 TO $25,999/YR 20
- $25,000 OR MORE 21

156. Do you own or rent this home?

- OWN 1
- RENT 2

INTERVIEWER: ASK Q. 157 ONLY IF YOU CANNOT DETERMINE ANSWER BY OBSERVATION.

157. Is this building on a city or suburban lot, on a place of less than ten acres, or on a place of 10 acres or more?

- ON A CITY OR SUBURBAN LOT (SKIP TO Q. 160) 1
- ON A PLACE OF LESS THAN 10 ACRES (ASK Q. 158) 2
- ON A PLACE OF 10 ACRES OR MORE (SKIP TO Q. 159) 3

IF "LESS THAN 10 ACRES" IN Q. 157, ASK:

158. Last year, 1976, did sales of crops, livestock, and other farm products from this place amount to $250 or more? (GO TO QUESTION 160)

- LESS THAN $250 1
- $250 OR MORE 2

IF "10 ACRES OR MORE" IN Q. 157, ASK:

159. Last year, 1976, did sales of crops, livestock, and other farm products from this place amount to $50 or more?

- LESS THAN $50 1
- $50 OR MORE 2

160. How many housing units are in this structure?

- ONE 1
- TWO 2
- THREE OR FOUR 3
- FIVE TO NINE 4
- TEN OR MORE 5

161. Not counting bathrooms how many rooms are there in your home?

- ONE 1
- TWO 2
- THREE 3
- FOUR 4
- FIVE 5
- SIX 6
- SEVEN 7
- EIGHT OR MORE 8

162. (SHOW CARD #16 – DO NOT READ RESPONSES)
Of which group do you consider yourself a member?

- CAUCASIAN/WHITE, NOT OF HISPANIC ORIGIN 1
- BLACK/NEGRO, NOT OF HISPANIC ORIGIN 2
- HISPANIC (MEXICAN, PUERTO RICAN, CUBAN, CENTRAL OR SOUTH AMERICAN OR OTHER SPANISH CULTURE OR ORIGIN, REGARDLESS OF RACE) 3
- ASIAN OR PACIFIC ISLANDER 4
- AMERICAN-INDIAN OR ALASKA NATIVE 5

THANK RESPONDENT FOR COOPERATION AND PRESENT ENVELOPE CONTAINING THANK YOU – VERIFICATION LETTER

INTERVIEWER OBSERVATIONS

163. Sex of Responding Head of Household.

- MALE 1
- FEMALE 2

164. Respondent's Race or Ethnic Group

- CAUCASIAN/WHITE, NOT OF HISPANIC ORIGIN 1
- BLACK/NEGRO, NOT OF HISPANIC ORIGIN 2
- HISPANIC (MEXICAN, PUERTO RICAN, CUBAN, CENTRAL OR SOUTH AMERICAN OR OTHER SPANISH CULTURE OR ORIGIN, REGARDLESS OF RACE) 3
- ASIAN OR PACIFIC ISLANDER 4
- AMERICAN-INDIAN OR ALASKA NATIVE 5

165. Type of Living Quarters

SINGLE FAMILY DWELLING, HOUSE 1
DUPLEX 2
APARTMENT OR FLAT. 3
HOUSING UNIT IN NON-TRANSIENT HOTEL, MOTEL, ETC 4
HOUSING UNIT PERMANENT, IN TRANSIENT HOTEL, MOTEL, ETC 5
HOUSING UNIT IN ROOMING HOUSE 6
MOBILE HOME OR TRAILER . . 7
UNIT NOT PERMANENT IN TRANSIENT HOTEL, MOTEL, ETC 8
TENT SITE OR TRAILER SITE. 9
OTHER (SPECIFY)

_____ . . 10
_____

166. Which of the following best describes the location of the respondent's house?

LARGE CITY, OVER 500,000 POPULATION. 1
LARGE CITY, 200,000 TO 500,000 POPULATION 2
SUBURB OF A LARGE CITY . . 3
RURAL AREA NEAR A LARGE CITY 4
MIDDLE-SIZE CITY, 50,000 TO 200,000 POPULATION. . . 5
SUBURB OF A MIDDLE-SIZE CITY 6
RURAL AREA NEAR A MIDDLE-SIZE CITY 7
SMALL CITY OR TOWN, LESS THAN 50,000 POPULATION. 8
RURAL AREA, NOT NEAR A LARGE OR MIDDLE-SIZE CITY 9

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